

# Exhibit J



Deposition of:  
**Dr. Benjamin Goldberg**

*November 12, 2019*

In the Matter of:  
**Dyfan LLC Vs. Target Corpoproration**

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<p style="text-align: right;">Page 2</p> <p>1 A P P E A R A N C E S :</p> <p>2</p> <p>3 DEVLIN LAW FIRM</p> <p>4 Attorneys for Plaintiff</p> <p>5 1526 Gilpin Avenue</p> <p>6 Wilmington, Delaware 19806</p> <p>7 BY: DEREK DAHLGREN, ESQ.</p> <p>8</p> <p>9 DUANE MORRIS, L.L.P.</p> <p>10 Attorneys for Defendant</p> <p>11 505 9th Street, Suite 1000</p> <p>12 Washington, DC 10004</p> <p>13 BY: CHRISTOPHER J. TYSON, ESQ.</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: center;">* * *</p>	<p style="text-align: right;">Page 4</p> <p>1 S T I P U L A T I O N S</p> <p>2</p> <p>3 IT IS HEREBY STIPULATED AND AGREED, by</p> <p>4 and among counsel for the respective</p> <p>5 parties hereto, that the filing, sealing</p> <p>6 and certification of the within deposition</p> <p>7 shall be and the same are hereby waived;</p> <p>8 IT IS FURTHER STIPULATED AND AGREED</p> <p>9 that all objections, except as to form of</p> <p>10 the question, shall be reserved to the</p> <p>11 time of the trial;</p> <p>12 IT IS FURTHER STIPULATED AND AGREED</p> <p>13 that the within deposition may be signed</p> <p>14 before any Notary Public with the same</p> <p>15 force and effect as if signed and sworn to</p> <p>16 before the Court.</p> <p>17</p> <p>18 * * *</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
<p style="text-align: right;">Page 3</p> <p>1 I N D E X</p> <p>2</p> <p>3 WITNESS PAGE</p> <p>4 BENJAMIN GOLDBERG</p> <p>5</p> <p>6 Examination by:</p> <p>7 MR. DAHLGREN 5</p> <p>8 MR. TYSON 225</p> <p>9 MR. DAHLGREN 242</p> <p>10</p> <p>11 E X H I B I T S</p> <p>12 GOLDBERG DESCRIPTION PAGE</p> <p>13 Exhibit 1 U.S. patent number 11</p> <p>14 997399</p> <p>15 Exhibit 2 patent number 10194292 11</p> <p>16 Exhibit 3 declaration of Dr. 12</p> <p>17 Benjamin Goldberg</p> <p>18 Exhibit 4 provisional patent 32</p> <p>19 disclosure entitled</p> <p>20 system and method for</p> <p>21 efficient information</p> <p>22 distribution and data</p> <p>23 collection in location</p> <p>24 aware connection</p> <p>25 networks</p> <p>Exhibit 5 numbered list of 69</p> <p>disputed claim terms</p> <p>Exhibit 6 system, method and 200</p> <p>computer program product</p> <p>for location and/or</p> <p>relevancy based triggers</p> <p>for mobile devices</p>	<p style="text-align: right;">Page 5</p> <p>1 B E N J A M I N G O L D B E R G, called</p> <p>2 as a witness, having been first duly</p> <p>3 sworn, was examined and testified as</p> <p>4 follows:</p> <p>5</p> <p>6 EXAMINATION BY</p> <p>7 MR. DAHLGREN:</p> <p>8 Q. Good morning, Dr. Goldberg.</p> <p>9 A. Good morning, Mr. Dahlgren.</p> <p>10 Q. Just for the record and</p> <p>11 everything, can you please state your name</p> <p>12 and address?</p> <p>13 A. Benjamin Goldberg, 200 Mercer</p> <p>14 Street, apartment 2F, New York, New York</p> <p>15 10012.</p> <p>16 Q. And are you represented here by</p> <p>17 counsel today?</p> <p>18 A. Yes.</p> <p>19 Q. You understand you're being</p> <p>20 deposed in response to a declaration that</p> <p>21 was submitted in the present case,</p> <p>22 correct?</p> <p>23 A. Yes.</p> <p>24 Q. Have you ever been deposed</p> <p>25 before?</p>

<p style="text-align: right;">Page 6</p> <p>1 A. Yes.</p> <p>2 Q. Approximately how many times?</p> <p>3 A. At least 50, maybe closer to 60.</p> <p>4 Q. Okay. So I'm going to go over</p> <p>5 the ground rules in a little bit, but</p> <p>6 you're probably going to be familiar with</p> <p>7 most of those. With these prior</p> <p>8 depositions, however, did any of them</p> <p>9 involve you expressing opinions on whether</p> <p>10 claims were mean plus function?</p> <p>11 A. I believe so, yes.</p> <p>12 Q. Do you recall which cases those</p> <p>13 were?</p> <p>14 A. There was a case where I was</p> <p>15 retained on behalf of a company called</p> <p>16 Agis, A-G-I-S, where I testified with</p> <p>17 regards to means plus function.</p> <p>18 Q. That's a District Court case?</p> <p>19 A. Yes, in Florida.</p> <p>20 Q. Okay.</p> <p>21 A. That's all that comes to mind.</p> <p>22 There may have been -- I may have</p> <p>23 submitted declarations regarding means</p> <p>24 plus function, I don't recall testifying</p> <p>25 about them --</p>	<p style="text-align: right;">Page 8</p> <p>1 A. I believe it was a PTAB</p> <p>2 proceeding.</p> <p>3 Q. Okay.</p> <p>4 A. And IPR, to be specific.</p> <p>5 Q. Okay. So just again, you've</p> <p>6 probably heard this 50 or 60 times, like</p> <p>7 you've said, but just a few ground rules.</p> <p>8 It's important that you give complete and</p> <p>9 truthful answers, do you understand?</p> <p>10 A. Yes.</p> <p>11 Q. And it's also important that you</p> <p>12 give verbal responses for the court</p> <p>13 reporter as opposed to nodding your head</p> <p>14 and things like that, can you do that</p> <p>15 today, please?</p> <p>16 A. Yes.</p> <p>17 Q. And again, occasionally, I may</p> <p>18 accidentally interrupt you, if I do, please</p> <p>19 let me know, it's important that we don't</p> <p>20 speak over each other, just so that we</p> <p>21 have a clean transcript, is that fair?</p> <p>22 A. Yes.</p> <p>23 Q. If you don't understand a</p> <p>24 question that I ask, please ask me to</p> <p>25 clarify, and if you don't, I'll just</p>
<p style="text-align: right;">Page 7</p> <p>1 Q. Okay.</p> <p>2 A. -- in deposition.</p> <p>3 Q. Do you recall any cases where</p> <p>4 you submitted declarations opining about</p> <p>5 whether terms should be considered as mean</p> <p>6 plus function terms?</p> <p>7 A. Well, there was a recent case</p> <p>8 where I believe my declaration talked</p> <p>9 about identifying structure for a means</p> <p>10 plus function case. In that case -- I'm</p> <p>11 sorry, let me restate that answer.</p> <p>12 There was a case in which I</p> <p>13 believe my declaration addressed</p> <p>14 identifying structure for means plus</p> <p>15 function claims.</p> <p>16 Q. Okay.</p> <p>17 A. And that case is the Sisvel v</p> <p>18 Spotify case, that may be on my CV.</p> <p>19 Q. Okay. I will just put a note to</p> <p>20 check the spelling of Sisvel, and we'll</p> <p>21 get that later.</p> <p>22 A. It's S-I-S-V-E-L.</p> <p>23 Q. Thank you very much.</p> <p>24 And was that a District Court</p> <p>25 case or a PTAB proceeding?</p>	<p style="text-align: right;">Page 9</p> <p>1 assume that you understand what I was</p> <p>2 asking, is that fair?</p> <p>3 A. Yes.</p> <p>4 Q. Okay. And your attorney may</p> <p>5 object to some of my questions, but unless</p> <p>6 you're instructed not to answer, you still</p> <p>7 have to answer, so do you understand that?</p> <p>8 A. I do.</p> <p>9 Q. Okay. Is there any reason today</p> <p>10 that you can't give complete and truthful</p> <p>11 testimony?</p> <p>12 A. No.</p> <p>13 Q. Okay. So what did you do to</p> <p>14 prepare for today's deposition?</p> <p>15 A. I reviewed documents and I met</p> <p>16 with counsel.</p> <p>17 Q. Who did you meet with?</p> <p>18 A. Mr. Tyson.</p> <p>19 Q. And when was that?</p> <p>20 A. Yesterday.</p> <p>21 Q. And approximately how long?</p> <p>22 A. Four and a half hours.</p> <p>23 Q. Do you recall what documents you</p> <p>24 reviewed?</p> <p>25 A. I -- I think I do remember, yes.</p>

<p style="text-align: right;">Page 10</p> <p>1 Q. Can you identify those</p> <p>2 documents?</p> <p>3 A. I read the provisional</p> <p>4 application in this case, I read the 197</p> <p>5 application, I read the claims of the 899</p> <p>6 and the 292 patents, they share the</p> <p>7 specifics with the 197 application. I</p> <p>8 reviewed some trial -- of my trial</p> <p>9 testimony in that A-G-I-S case, and of</p> <p>10 course I reviewed my declaration.</p> <p>11 Q. And was that the only meeting</p> <p>12 or -- only meeting that you had to prepare</p> <p>13 for today's deposition?</p> <p>14 A. Yes.</p> <p>15 Q. Did you have any phone calls</p> <p>16 prior to that?</p> <p>17 A. Not in preparation for this</p> <p>18 case -- for this deposition.</p> <p>19 Q. Okay. So aside from reviewing</p> <p>20 the trial testimony in the Agis case, you</p> <p>21 didn't review any other materials that are</p> <p>22 beyond those listed in your declaration</p> <p>23 that was submitted in this case, is that</p> <p>24 correct?</p> <p>25 A. To the best of my recollection,</p>	<p style="text-align: right;">Page 12</p> <p>1 submitted in the Dyfan Target case in</p> <p>2 the Western District of Texas, mark</p> <p>3 that as Goldberg Exhibit 3.</p> <p>4 [Whereupon, at this time, the</p> <p>5 reporter marked as Goldberg Exhibit 3</p> <p>6 the above-mentioned declaration of Dr.</p> <p>7 Benjamin Goldberg for identification.]</p> <p>8 Q. And so, Dr. Goldberg, if you</p> <p>9 wouldn't mind if you could look at your</p> <p>10 declaration that's Exhibit 3, I believe on</p> <p>11 page three, there's a list of materials</p> <p>12 reviewed. Just let me know when you're</p> <p>13 there.</p> <p>14 A. Yes.</p> <p>15 Q. And I just wanted to confirm</p> <p>16 again that during your preparation, the</p> <p>17 only additional material that you reviewed</p> <p>18 was, I believe you said, trial testimony</p> <p>19 in that Agis case?</p> <p>20 A. To the best of my recollection,</p> <p>21 that's true, yes.</p> <p>22 Q. Okay. How long did you work on</p> <p>23 preparing your declaration, to the best of</p> <p>24 your recollection?</p> <p>25 A. In terms of number of days or</p>
<p style="text-align: right;">Page 11</p> <p>1 that's correct.</p> <p>2 MR. DAHLGREN: And just to make</p> <p>3 it easier, I'll go ahead and get that</p> <p>4 out and mark it for you and also just</p> <p>5 the patents as well.</p> <p>6 THE WITNESS: Great.</p> <p>7 MR. DAHLGREN: So starting with</p> <p>8 the patents, this will be marked</p> <p>9 Goldberg Exhibit 1. It's a U.S.</p> <p>10 patent number 997399.</p> <p>11 [Whereupon, at this time, the</p> <p>12 reporter marked as Goldberg Exhibit 1</p> <p>13 the above-mentioned U.S. patent number</p> <p>14 997399 for identification.]</p> <p>15 MR. DAHLGREN: And for Goldberg</p> <p>16 Exhibit 2 is a second patent, it's</p> <p>17 patent number 10194292.</p> <p>18 [Whereupon, at this time, the</p> <p>19 reporter marked as Goldberg Exhibit 2</p> <p>20 the above-mentioned patent number</p> <p>21 10194292 for identification.]</p> <p>22 MR. DAHLGREN: And finally, we</p> <p>23 have what is Exhibit I, declaration of</p> <p>24 Dr. Benjamin Goldberg with regard to</p> <p>25 certain claim constructions that was</p>	<p style="text-align: right;">Page 13</p> <p>1 what period of time?</p> <p>2 Q. Number of hours, approximately,</p> <p>3 if you can recall --</p> <p>4 A. Yes --</p> <p>5 Q. -- you put in.</p> <p>6 A. -- around 12 to 15 hours,</p> <p>7 somewhere around there.</p> <p>8 Q. And when were you first</p> <p>9 contacted about potentially participating</p> <p>10 in this case?</p> <p>11 A. I'd say mid-August of this year.</p> <p>12 Q. So I just want to take a look at</p> <p>13 your CV and go over some of your work</p> <p>14 experience.</p> <p>15 What's your present position</p> <p>16 right now?</p> <p>17 A. I'm a tenured associate</p> <p>18 professor of computer science at NYU.</p> <p>19 Q. And --</p> <p>20 A. I'm also the director of the</p> <p>21 master's program at NYU in computer</p> <p>22 science.</p> <p>23 Q. And how long have you been a</p> <p>24 tenured associate professor there?</p> <p>25 A. In that position, I've been for</p>

<p style="text-align: right;">Page 14</p> <p>1 about 25 years, and then before that, I 2 was an assistant professor. 3 Q. Okay. What did you do before 4 you were an assistant professor at NYU? 5 A. I was a graduate student. 6 Q. And that was at Yale? 7 A. Yes. 8 Q. And so there was no, like, 9 positions in the private sector in between 10 your studies at Yale and being professor 11 at NYU? 12 A. Correct. I had summer jobs as a 13 student, but my full-time employment has 14 been in academics. 15 Q. Okay. And what would you say is 16 the primary focus of your work at NYU in 17 terms of research? 18 A. Research -- 19 MR. TYSON: Objection to form. 20 A. Research focus primarily has 21 been in programming languages, compilers, 22 it's called program verification, ensuring 23 programs run correctly, and memory 24 management. 25 Q. And so looking at your recent</p>	<p style="text-align: right;">Page 16</p> <p>1 Q. Is there a -- if you don't mind 2 me asking, is there a particular reason or 3 is it the research and work that you're 4 doing didn't lend itself to that? 5 MR. TYSON: Objection to the 6 form. 7 A. I've always been inclined to 8 just publish the work and not bother to 9 patent it. It wasn't clear there would be 10 any true financial value for the fairly 11 theoretical work that I'm doing. 12 Q. Okay, okay. Now, looking at 13 your CV, are there any references to work 14 on location-based networks? 15 MR. TYSON: I object to form. 16 A. No, I don't believe so. 17 Q. What experience do you have 18 working with location-based networks? 19 MR. TYSON: I object to the 20 form. 21 MR. DAHLGREN: I'm sorry, what 22 was the objection, to the form? 23 MR. TYSON: It was a form 24 objection, I'll speak up. 25 MR. DAHLGREN: I'm sorry, I just</p>
<p style="text-align: right;">Page 15</p> <p>1 journal papers, the last journal paper 2 that you authored was in November or at 3 least was published in November 2005, is 4 that correct? 5 A. Yes, for my journal papers, 6 that's correct. 7 Q. Okay. And in terms of books or 8 chapters in books, it looks like there was 9 a book that was published in 1996, is that 10 correct? 11 A. Yes, a chapter of a book. 12 Q. A chapter, okay. 13 And the publications and 14 proceedings of refereed symposia, it looks 15 like the last one was in September of 16 2010, is that correct? 17 A. That's correct. 18 Q. I didn't see, and perhaps I 19 missed it, do you have any patents -- 20 A. No. 21 Q. -- yourself? 22 A. No. 23 Q. Have you applied for any 24 patents? 25 A. I have not.</p>	<p style="text-align: right;">Page 17</p> <p>1 couldn't hear. 2 MR. TYSON: Yup. 3 A. In the course of my teaching, I 4 certainly teach about network protocols 5 and routing, but other than the teaching 6 about networks, I haven't done any -- any 7 actual work in location-based networks. 8 Q. And how do location-based 9 networks differ from other type of 10 networks that you've worked with? 11 MR. TYSON: I object to the 12 form. 13 A. Well -- so I teach -- when I 14 lecture about networks, I lecture about 15 the TCP/IP protocol for the most part, and 16 the various layers in the network stack, 17 and certainly there's a location component 18 to that to leave MAC addresses and IP 19 addresses, but the focus certainly is not 20 on location-based networks. 21 Q. So it would be fair to say that 22 you've never created data communication 23 like Paradigm based on physical attributes 24 such as location as a basis for message 25 routing, is that accurate?</p>

<p style="text-align: right;">Page 18</p> <p>1 MR. TYSON: I object to the</p> <p>2 form.</p> <p>3 A. Yes.</p> <p>4 Q. So this might be for part of my</p> <p>5 own education, but I just want to go over</p> <p>6 kind of the technology that is at issue or</p> <p>7 involved in the patents.</p> <p>8 And first, you're familiar with</p> <p>9 cellular networks, correct?</p> <p>10 A. Yes.</p> <p>11 Q. Do you consider that a term of</p> <p>12 art?</p> <p>13 A. Cellular network? Yes, it's a</p> <p>14 term of art.</p> <p>15 Q. And how would you describe that</p> <p>16 in lay terms, if you don't mind?</p> <p>17 A. These are the protocols</p> <p>18 supporting wireless communication for cell</p> <p>19 phones, typically based on wireless</p> <p>20 standards such as 3G or LTE.</p> <p>21 Q. And 5G, is the new one coming</p> <p>22 out that I hear all about?</p> <p>23 A. Correct.</p> <p>24 Q. Okay. And when you say</p> <p>25 protocols, again, just for my benefit,</p>	<p style="text-align: right;">Page 20</p> <p>1 how that is achieved with a stationary</p> <p>2 wireless network, I think you said the</p> <p>3 manner in how the messages are transferred</p> <p>4 in the network?</p> <p>5 MR. TYSON: I object to the</p> <p>6 form.</p> <p>7 A. So there are thousands of rules</p> <p>8 in different handshaking processes that go</p> <p>9 on, I'm more familiar with some, less</p> <p>10 familiar with others.</p> <p>11 Q. Okay.</p> <p>12 A. But I've certainly -- I've read</p> <p>13 lots of code in that space.</p> <p>14 Q. Okay. Does Bluetooth have a</p> <p>15 specific protocol?</p> <p>16 A. Yes.</p> <p>17 Q. Are you familiar with that one?</p> <p>18 A. Less than with the other</p> <p>19 wireless protocols, 3G, 4G, things like</p> <p>20 that. I'd have -- I have reviewed a fair</p> <p>21 amount of Bluetooth documentation, but</p> <p>22 it's been a long time, so I'd have to</p> <p>23 refresh my memory.</p> <p>24 Q. Okay. Would you refer to</p> <p>25 protocol itself as a term of art?</p>
<p style="text-align: right;">Page 19</p> <p>1 what do you mean by that?</p> <p>2 A. These are the rules governing</p> <p>3 the format of messages sent between the</p> <p>4 mobile device and the network, rules</p> <p>5 governing the -- which messages need to be</p> <p>6 sent, which information needs to be sent</p> <p>7 in order to support operation of cell</p> <p>8 phones.</p> <p>9 Q. Okay. Would protocols also</p> <p>10 include the manner in which the messages</p> <p>11 are transmitted, and excuse me if I'm not</p> <p>12 being technically accurate, but there's</p> <p>13 like a handshake protocol, correct?</p> <p>14 A. Yeah, and so as I mentioned,</p> <p>15 governs not only the format of messages</p> <p>16 sent, but the types of messages that have</p> <p>17 to be exchanged between the mobile device</p> <p>18 and the network, and that includes certain</p> <p>19 handshaking protocols, handshaking rules</p> <p>20 that require a series of messages back and</p> <p>21 forth to provide both the mobile device</p> <p>22 and the network with sufficient</p> <p>23 information in order to be able to</p> <p>24 communicate.</p> <p>25 Q. Okay. And are you familiar with</p>	<p style="text-align: right;">Page 21</p> <p>1 A. Certainly.</p> <p>2 Q. And I think you mentioned that</p> <p>3 there are thousands of different protocols</p> <p>4 that are out there in existence?</p> <p>5 A. Well, that --</p> <p>6 Q. Or are being utilized.</p> <p>7 A. There are thousands of rules</p> <p>8 that the cell phone and the base station</p> <p>9 have to follow in order to support all the</p> <p>10 operations that cell phones can perform.</p> <p>11 Q. If you wouldn't mind, for the</p> <p>12 protocols that you are familiar with, I</p> <p>13 guess we can do, like, 3G, could you</p> <p>14 describe in a high level how a message is</p> <p>15 transmitted?</p> <p>16 MR. TYSON: Objection.</p> <p>17 Foundation. Form.</p> <p>18 A. That's tough at a high level,</p> <p>19 it's so complicated, but the idea is</p> <p>20 that -- you're talking about transmitting</p> <p>21 from a cell phone to somewhere else, to</p> <p>22 some destination --</p> <p>23 Q. Yes.</p> <p>24 A. -- on the internet?</p> <p>25 Q. We can do that, yes, that's</p>

<p style="text-align: right;">Page 22</p> <p>1 correct. Let's do that.</p> <p>2 A. So essentially, the IP packet, a</p> <p>3 packet that the internet knows about is</p> <p>4 packaged inside of a message that conforms</p> <p>5 to the 3G protocol, and it might be the</p> <p>6 case that if a packet is long enough, it's</p> <p>7 broken up into smaller pieces to fit</p> <p>8 inside the packets that the cell -- the</p> <p>9 cellular protocol knows about.</p> <p>10 And then based on an agreement</p> <p>11 between the cell phone and the base</p> <p>12 station, that packet gets processed, gets</p> <p>13 coded so that it can be transmitted</p> <p>14 reliably over the air, and that includes</p> <p>15 adding redundant information, anything</p> <p>16 that would make the packet less likely to</p> <p>17 be corrupted by noise over the air.</p> <p>18 And ultimately, the packets are</p> <p>19 transmitted from the cell phone to the</p> <p>20 base station, where they are reassembled</p> <p>21 into the entire data that encapsulates the</p> <p>22 IP packet, and then the IP packet is</p> <p>23 extracted and sent on to the internet.</p> <p>24 Q. And you mentioned an agreement</p> <p>25 between the cell phone and the base</p>	<p style="text-align: right;">Page 24</p> <p>1 process.</p> <p>2 Q. Okay. And for communication</p> <p>3 from the base station to the cell phone,</p> <p>4 is it the same process or is it different?</p> <p>5 A. Similar process, where the base</p> <p>6 station essentially broadcasts to all the</p> <p>7 cell phones in its cell here's how I'm</p> <p>8 going to communicate with you.</p> <p>9 Q. Okay.</p> <p>10 A. And then based on that, each</p> <p>11 cell phone knows what to listen for.</p> <p>12 Q. And when you say the cell phone</p> <p>13 knows what to listen for, are they</p> <p>14 listening for the actual message being</p> <p>15 transmitted or is there some initial</p> <p>16 contact where the base station informs the</p> <p>17 cell phone that I'm sending something your</p> <p>18 way?</p> <p>19 MR. TYSON: I object to the</p> <p>20 form.</p> <p>21 A. So after the cell phone knows</p> <p>22 how to communicate with the base station,</p> <p>23 the base station then says here are</p> <p>24 additional details about how I'm going to</p> <p>25 communicate with you and when, and so the</p>
<p style="text-align: right;">Page 23</p> <p>1 station, what did you mean by that?</p> <p>2 A. So based on the signal quality</p> <p>3 and the distance of the phone from the</p> <p>4 tower, there are different forms of</p> <p>5 encoding that can be chosen that have</p> <p>6 different levels of redundancy, and the</p> <p>7 base station -- the bottom line is the</p> <p>8 base station tells the cell phone how to</p> <p>9 encode the data so it can be transmitted</p> <p>10 reliably to the base station.</p> <p>11 Q. Okay, okay. So when these</p> <p>12 messages are sent, there's prior</p> <p>13 communications between, like, the base</p> <p>14 station and the cell phone before the</p> <p>15 packet's even sent?</p> <p>16 A. Very much so. When the -- when</p> <p>17 the cell phone first enters the cell,</p> <p>18 which is the region serviced by a given</p> <p>19 tower, there's a whole handshaking process</p> <p>20 where the mobile device identifies itself,</p> <p>21 the network says, okay, I recognize you,</p> <p>22 here's what you should do to transmit back</p> <p>23 to me.</p> <p>24 Q. Okay.</p> <p>25 A. And it's a fairly complicated</p>	<p style="text-align: right;">Page 25</p> <p>1 mobile device, the cell phone, knows when</p> <p>2 to listen and how to listen for</p> <p>3 transmissions from the base station.</p> <p>4 Q. Okay. Is the process similar</p> <p>5 with stationary wireless networks?</p> <p>6 MR. TYSON: I object to the</p> <p>7 form.</p> <p>8 Q. In terms of -- excuse me, is the</p> <p>9 process of communication between, I'm</p> <p>10 going to use nodes for lack of a better</p> <p>11 word, and a stationary wireless network</p> <p>12 similar to that of a cellular network?</p> <p>13 A. So when I think of stationary</p> <p>14 wireless networks, I think of Bluetooth,</p> <p>15 WiMAX or Wi-Fi, and the protocols do share</p> <p>16 some similarity, but because they don't</p> <p>17 have to handle mobility, in other words,</p> <p>18 the devices aren't moving, there's no</p> <p>19 handoff from one tower to the next.</p> <p>20 It's -- it's somewhat simpler,</p> <p>21 the communication, for the stationary</p> <p>22 wireless networks. When a device such as</p> <p>23 a laptop or even a cell phone on a Wi-Fi</p> <p>24 or Bluetooth network gets turned on, it</p> <p>25 has to announce itself, and then there's a</p>

<p style="text-align: right;">Page 26</p> <p>1   handshaking process to set up the</p> <p>2   communication parameters between the base</p> <p>3   station, is really the right term, and the</p> <p>4   device.</p> <p>5   Q.   Okay. And so again, talking</p> <p>6   about the handshaking process, does the</p> <p>7   handshaking process occur with every</p> <p>8   subsequent communication between the base</p> <p>9   station and the cell phone?</p> <p>10   MR. TYSON: I object to the</p> <p>11   form.</p> <p>12   A.   I'd have to look at the</p> <p>13   individual -- individual protocol</p> <p>14   standards to answer that for sure.</p> <p>15   My recollection is no, once some</p> <p>16   initial handshake goes on, the data can go</p> <p>17   ahead and be transmitted back and forth.</p> <p>18   Q.   Okay. When that data's</p> <p>19   transmitted, is there first any message or</p> <p>20   information sent to the receiving cell</p> <p>21   phone that a message is on the way or that</p> <p>22   a message has been sent?</p> <p>23   A.   That I don't recall. There's an</p> <p>24   acknowledgment process where the -- the</p> <p>25   recipient has to send back a message</p>	<p style="text-align: right;">Page 28</p> <p>1   Q.   And you would consider all those</p> <p>2   to be terms of art?</p> <p>3   A.   Yes.</p> <p>4   Q.   And so a person working in the</p> <p>5   field of, like, networks would have some</p> <p>6   understanding of these various terms of</p> <p>7   art that we just discussed, is that fair?</p> <p>8   A.   Yes.</p> <p>9   Q.   And within networks, there are</p> <p>10   also things called subnetworks, is that</p> <p>11   correct?</p> <p>12   A.   Yes.</p> <p>13   Q.   And how would you describe that?</p> <p>14   MR. TYSON: I object to the</p> <p>15   form.</p> <p>16   Q.   How would you describe</p> <p>17   subnetwork?</p> <p>18   A.   The context in which I've heard</p> <p>19   it is where you have a large network such</p> <p>20   as the internet, that is in fact a</p> <p>21   collection of smaller networks, and</p> <p>22   typically a subnetwork, or a subnet, is a</p> <p>23   portion of the larger network that have --</p> <p>24   sorry, that has devices on it with similar</p> <p>25   network addresses.</p>
<p style="text-align: right;">Page 27</p> <p>1   saying, hey, I received what you sent me.</p> <p>2   Beyond that, I just don't recall.</p> <p>3   Q.   And again, just so I understand,</p> <p>4   the protocols that govern these types of</p> <p>5   communications, there are a variety of</p> <p>6   them and they have certain differences, is</p> <p>7   that fair?</p> <p>8   A.   Certainly.</p> <p>9   Q.   Okay. Are you familiar with low</p> <p>10   bandwidth sensor networks?</p> <p>11   A.   I'm somewhat familiar with</p> <p>12   sensor networks. I'm not -- I don't</p> <p>13   particularly recall hearing about low</p> <p>14   bandwidth sensor networks.</p> <p>15   Q.   Okay. Would you consider sensor</p> <p>16   networks to be a term of art?</p> <p>17   A.   Yes.</p> <p>18   Q.   And also going back to</p> <p>19   stationary wireless networks, would you</p> <p>20   consider that to be a term of art as well?</p> <p>21   A.   Yes.</p> <p>22   Q.   And then under that genus, you</p> <p>23   had mentioned Bluetooth, WiMAX and Wi-Fi,</p> <p>24   correct?</p> <p>25   A.   Yes.</p>	<p style="text-align: right;">Page 29</p> <p>1   So a subnet is often a</p> <p>2   collection of computers and other devices</p> <p>3   that have the same initial digits in their</p> <p>4   IP addresses, or that are all connected to</p> <p>5   the same router.</p> <p>6   Q.   Okay. Would you consider</p> <p>7   subnetworks to be a term of art as well in</p> <p>8   this field?</p> <p>9   A.   Yes. It's not necessarily a</p> <p>10   precise term denoting a single</p> <p>11   configuration, but it is a term of art.</p> <p>12   Q.   And when I say this field, just</p> <p>13   to make things easier so we're all on the</p> <p>14   same page, I mean in your declaration, you</p> <p>15   discussed the qualifications of a person</p> <p>16   of ordinary skill in the art?</p> <p>17   A.   Yes.</p> <p>18   Q.   Software development, I'm</p> <p>19   looking at paragraph 16 of Exhibit 3 which</p> <p>20   is your declaration, and so I'm just</p> <p>21   trying to make sure that when I refer to,</p> <p>22   like, in this area, you know, term of art</p> <p>23   that we're referring to something that's</p> <p>24   tied to the definition of the POSITA and</p> <p>25   kind of the field of invention with these</p>

<p style="text-align: right;">Page 30</p> <p>1 patents that we're dealing with. Am I 2 making sense? Was that clear? 3 A. Yes. When you said this field, 4 I understood it to be the field, the 5 technologies that I've identified in 6 paragraph 16. 7 Q. Okay, okay, excellent, thank 8 you. You had mentioned WiMAX, could you 9 please tell me briefly what that refers 10 to? 11 A. That's another stationary 12 wireless network protocol that really 13 hasn't caught on, Bluetooth became much 14 more popular. It was just another 15 competing protocol. 16 Q. Okay. But that's still 17 considered -- excuse me, WiMAX would still 18 be considered a term of art, though it's 19 not as prevalent as some of the other 20 stationary wireless network protocols? 21 A. Correct. 22 Q. And I believe you said that you 23 weren't entirely familiar at this moment 24 with the protocol for Bluetooth, do you 25 happen to recall how messages are</p>	<p style="text-align: right;">Page 32</p> <p>1 second, I'll see if I can find a reference 2 to it. 3 Well -- 4 A. Can you -- 5 Q. Give me one second, it's 6 referred to in the provisional 7 application, I believe. 8 A. Which I don't think you've 9 marked yet. 10 Q. Correct, correct, and I'll just 11 confirm where it is, and if it's right, 12 I'm going to pull it out, get you a copy. 13 MR. DAHLGREN: Can you mark this 14 as Goldberg Exhibit 4. 15 [Whereupon, at this time, the 16 reporter marked as Goldberg Exhibit 4 17 the above-mentioned provisional patent 18 disclosure entitled system and method 19 for efficient information distribution 20 and data collection in location aware 21 connection networks for 22 identification.] 23 Q. And so I'm looking at for 24 Exhibit 4 the provisional patent 25 disclosure entitled system and method for</p>
<p style="text-align: right;">Page 31</p> <p>1 transmitted using the WiMAX protocol? 2 MR. TYSON: I object to the 3 form. 4 A. I don't. I think what I 5 testified, Mr. Dahlgren, was that it's 6 been a long time since I looked at the 7 Bluetooth standard, and I just don't 8 recall. 9 Q. Yes, and that's fair, I wasn't 10 trying to mischaracterize your testimony. 11 Prior to your involvement in 12 this case, had you heard of the term 13 dedicated short-range communications? 14 A. I don't recall. I may have, I'm 15 just not sure. 16 Q. And since your involvement in 17 this case, do you have an understanding as 18 to what dedicated short-range 19 communications refers to? 20 A. Are you referring to something 21 in the patent? I'm not sure what context. 22 Q. Yes, so let's -- 23 A. In my declaration? 24 Q. Let's see where I can point you 25 to that most easily. Bear with me one</p>	<p style="text-align: right;">Page 33</p> <p>1 efficient information distribution and 2 data collection in location aware 3 connection networks. There is kind of a 4 case kind of caption heading above that 5 that has a page number, do you see that at 6 the very top? 7 A. Yes. 8 Q. And if you look at page six of 9 35, you'll see at the very bottom of the 10 page, there's a reference to dedicated 11 short -- it says rage communication, but I 12 believe that is a typo. And if you want 13 to look at the following page, there's a 14 little bit more discussion in the first 15 few paragraphs of the abbreviation, DSRC. 16 A. And what was your question? 17 Q. Well, first I'd asked if you 18 were familiar with dedicated short-range 19 communications prior to your involvement 20 in this case, and then I believe after I 21 asked that since your involvement in this 22 case, have you developed an understanding 23 as to what that refers to? 24 A. So in this context, I was not 25 familiar with the term.</p>

<p style="text-align: right;">Page 34</p> <p>1 Q. If at any time you need to take 2 a break, please just let me know. 3 A. Sure. 4 Q. And I'll try to stop as soon as 5 we can. 6 A. So prior to this case, I was not 7 familiar with the DSRC, dedicated 8 short-range communications referred to in 9 Exhibit 4. 10 Q. And if you look at, it's page 11 seven of 35 of Exhibit 4, the provisional 12 application, the beginning of the third 13 paragraph, that's the third sentence, it 14 says however, to make use of this spectrum 15 in a mobile environment required 16 development of new communications 17 protocols. 18 A. I see that, yes. 19 Q. And then you see the sentences 20 following that where it discusses some 21 IEEE standard? 22 A. IEEE 802.11 standard is what we 23 think of as Wi-Fi. 24 Q. And so the following sentence 25 says that it was modified to allow what is</p>	<p style="text-align: right;">Page 36</p> <p>1 see data that may or may not be intended 2 for a particular device, so if I'm a 3 mobile phone, I can see all the bits 4 flying around, even those being sent to 5 other devices, but I know I should only 6 listen to and receive the data that's 7 intended for me. 8 Q. Okay. And is there -- in the 9 various protocols that you're aware of for 10 communications, is there an indication 11 that's sent to a cell phone that this 12 message is actually intended for you? 13 MR. TYSON: I object to the 14 form. 15 A. Yes. And let me just remark, 16 depending on the protocol, it may be based 17 on timing, in that the base station has 18 said data sent during this particular 19 timeframe is meant for mobile device A, 20 data sent during this timeframe is meant 21 for mobile device B, so it -- at the 22 wireless level, it can be based on timing, 23 not just on saying specifically or 24 explicitly this data's for you. 25 Q. Okay. So if I understand</p>
<p style="text-align: right;">Page 35</p> <p>1 known as association-less protocol 2 identified as IEEE 802.11p, do you see 3 that? 4 A. Yeah, I believe the word is 5 association-less. 6 Q. Association-less, excuse me if I 7 misspoke, thank you. 8 Do you know what modifications 9 were made? 10 A. I do not, other -- beyond what's 11 explained in this paragraph. 12 Q. Okay. And further down in the 13 same paragraph, the sentence beginning 14 because a system is radio based, all 15 terminals can hear all messages 16 transmitted within radio range? 17 A. I see that. 18 Q. Do you understand hearing a 19 message to be different than receiving it? 20 I was just curious about the use of the 21 different terms. 22 A. Yes. Receiving a message means 23 receiving the data sent over the air that 24 is intended for that device. Hearing, as 25 it's being used here, means being able to</p>	<p style="text-align: right;">Page 37</p> <p>1 correctly, there's different ways that a 2 base station may notify a cell phone that 3 this message is for you? 4 A. Yes. 5 Q. Okay. Are you familiar with 6 vehicle infrastructure integration, it's 7 also discussed in the provisional 8 application, I believe it's page seven of 9 35 of Exhibit 4 in the very first 10 paragraph? 11 A. I was not familiar with it prior 12 to reading this provisional, my knowledge 13 of it is based on the provisional. 14 Q. Okay. So are you familiar with 15 the DSRC/WAVE, W-A-V-E, concept? 16 A. Not beyond what's described in 17 this document. 18 Q. And so it's fair to say that 19 you're not familiar with the type of 20 communication protocol that DSRC/WAVE 21 utilized? 22 MR. TYSON: I object to the 23 form. 24 A. That's correct, beyond what was 25 described in this document.</p>

<p style="text-align: right;">Page 38</p> <p>1 Q. And given that your familiarity 2 with vehicle infrastructure integration 3 and DSRC/WAVE is based on the information 4 in Exhibit 4, provisional application, is 5 it fair to say that you couldn't opine on 6 whether those are terms of art? 7 MR. TYSON: I object to the 8 form. 9 A. I guess independent of what is 10 disclosed here, I would not have known 11 those to be terms of art. The fact that 12 they are -- it refers to the DSRC as a 13 particular mode of communication, it 14 appears to be a term of art for people 15 working in that area, but I wouldn't have 16 known it independently of this provision. 17 Q. Okay. At the bottom of page 18 seven of 35 of Exhibit 4, there's a 19 reference to a suite of standards known as 20 IEEE 1609 wires access in vehicular 21 environments wave. 22 A. I see that. 23 Q. And the provisional states that 24 this suite address is security net, 25 networking and messaging, as well as</p>	<p style="text-align: right;">Page 40</p> <p>1 network communications protocols that 2 we've been discussing at a high level? 3 MR. TYSON: I object to the 4 form. 5 A. Again, I can't answer for sure 6 not looking at this IEEE standard, but 7 that's what I would expect, that defines 8 how the initial association between a 9 mobile device and a base station and the 10 definition of what a message actually is, 11 a packet, a message, and how to route 12 them. 13 Q. Okay. And the IEEE standards 14 that are identified here, those are -- 15 strike that. 16 The IEEE standards referenced in 17 the provisional application of Exhibit 4, 18 those are standards that would be well 19 known to a person skilled in the art, is 20 that fair to say? 21 MR. TYSON: I object to the 22 form. 23 A. Well, I think it would have been 24 known to a person of skill in the art who 25 happened to be working in wireless access</p>
<p style="text-align: right;">Page 39</p> <p>1 channel management, do you see that? 2 A. I do. 3 Q. What is meant by channel 4 management? 5 MR. TYSON: I object to the 6 form. 7 Q. To the best of your 8 understanding. 9 A. I'd have to -- to look at the 10 standard. In general, it means choosing 11 the mode of communication that works given 12 the channel, the quality of the channel, 13 which is how much interference there is 14 from other sources over the air. And also 15 who gets to transmit on what channel. 16 So a channel is typically some 17 range of frequencies, and different mobile 18 devices could be assigned different 19 channels to transmit on, and so the base 20 station has to assign channels depending 21 on the protocol, assign channels to 22 different mobile devices. 23 Q. Okay. And the reference to 24 networking and messaging that is addressed 25 by this standard, is that similar to the</p>	<p style="text-align: right;">Page 41</p> <p>1 for vehicles. 2 So, you know, generally I've 3 talked about in my declaration how -- what 4 background a person of skill in the art 5 would have, and so a person of skill in 6 the art would certainly be able to read 7 the IEEE standard and to understand it, be 8 able to implement it, but they wouldn't 9 necessarily, coming out of -- out of 10 college and working for a few years, they 11 wouldn't necessarily have seen this 12 particular standard, but they can 13 certainly read and understand it. 14 Q. Okay. Are you familiar with the 15 term data format and encoding schemes? 16 A. Sure. 17 Q. Is that a single term, 18 generally, or is that two separate terms? 19 A. It's two related terms. 20 Q. And could you just describe, and 21 briefly, just what those two terms mean? 22 A. Yes. Data format means how we 23 actually organize the data that we want to 24 transmit so that the recipient of the 25 message would understand it, so how</p>

<p style="text-align: right;">Page 42</p> <p>1 many -- how many bits you can send in one  2 packet and what, you know, each field of a  3 message means, those are all data formats.  4 Encoding schemes are -- I  5 mentioned that a message goes through a  6 sort of processing in order to add  7 redundancy for reliable transmission over  8 the air, and so encoding schemes are ways  9 of manipulating the bits, adding  10 redundancy, so that the transmission is  11 sufficiently reliable to be received at  12 the other end.  13 Q. Okay. Going back to protocols,  14 I just want to make sure I understand how  15 these work. Is there coding that is done  16 that establishes the protocol?  17 I can rephrase the question if  18 it wasn't clear.  19 A. Let me try to answer --  20 Q. Sure.  21 A. I'll try to answer. That is the  22 standards define the information that has  23 to be sent between the base station and a  24 wireless device in order for the  25 communication -- for subsequent</p>	<p style="text-align: right;">Page 44</p> <p>1 strike that.  2 When a cellular device is used  3 with a particular protocol, that would  4 inform a person skilled in the art that  5 that device has some software component or  6 components that are used for purposes of  7 following and implementing the protocol?  8 MR. TYSON: I object to the  9 form.  10 A. I agree with that.  11 Q. Okay. And if a device, for  12 example, was using the Bluetooth protocol,  13 a person skilled in the art could look to  14 that protocol and understand -- strike  15 that.  16 If a device is using Bluetooth  17 protocol, for example, would a person  18 skilled in the art have a sense as to what  19 software was residing on the device so  20 that it could implement that protocol?  21 A. Yes, for the actual Bluetooth  22 protocol, one of skill may have -- might  23 have to look at the standard, but would  24 understand what the code on the devices  25 would have to do to support the protocol.</p>
<p style="text-align: right;">Page 43</p> <p>1 communications to happen.  2 So as I said, there are  3 thousands of rules and processes that have  4 to be followed, and there is typically  5 software code running on the base station  6 and the mobile device that dictates -- I'm  7 sorry, the software on those devices that  8 obey the standard and perform the  9 operations dictated by the standard.  10 Q. So then is it fair to say that  11 if you have a cellular device and base  12 station that are using a particular  13 protocol, that the base station and  14 cellular device would have some software  15 program framing allowing them to implement  16 a protocol?  17 MR. TYSON: I object to the  18 form.  19 A. I would describe it as the code  20 would implement the protocols.  21 Q. And the code would be code  22 residing on -- at the base station and on  23 the cellular device?  24 A. Yes.  25 Q. So when a device is used --</p>	<p style="text-align: right;">Page 45</p> <p>1 Q. And that would hold true with  2 pretty much every type of communication  3 protocol for networks, is that fair?  4 MR. TYSON: I object to the  5 form.  6 A. Every standardized communication  7 protocol, yes, one of skill could read the  8 standard and understand that there is code  9 implementing that standard on the devices.  10 Q. Okay. And the code that would  11 be implemented on the devices for using a  12 particular protocol -- strike that, strike  13 that, I'll get back to that.  14 So we talked about communication  15 protocols, are you familiar with the term  16 transfer protocol?  17 A. I am. There are various  18 transfer protocols that are used for  19 transferring files, for example, large  20 blocks of data. FTP, which stands for the  21 file transfer protocol, comes to mind.  22 Q. Okay. So that is somewhat  23 different than the communication protocols  24 that we've been discussing?  25 A. It's built on top of the</p>

<p style="text-align: right;">Page 46</p> <p>1 communication protocol.</p> <p>2 Q. Okay. And would you consider</p> <p>3 transfer protocols to be a term of art?</p> <p>4 A. In the context that I was just</p> <p>5 discussing, yes.</p> <p>6 Q. And the security protocols, are</p> <p>7 those also protocols that, if I</p> <p>8 mischaracterize what you said before,</p> <p>9 please correct me, that are kind of on top</p> <p>10 of the communication protocol?</p> <p>11 A. Yes, typically they define how</p> <p>12 data is encrypted before being sent via</p> <p>13 the communication protocols we've been</p> <p>14 discussing.</p> <p>15 Q. Okay.</p> <p>16 A. As a general term.</p> <p>17 Q. Understand. And have you heard</p> <p>18 of the term back haul network?</p> <p>19 A. Say that again?</p> <p>20 Q. Back haul network?</p> <p>21 A. H-A-U-L?</p> <p>22 Q. Correct.</p> <p>23 A. It didn't ring a bell. If it's</p> <p>24 in the patents provisionals of my</p> <p>25 declaration, I'd be happy to take a look,</p>	<p style="text-align: right;">Page 48</p> <p>1 A. Sitting here, it's not familiar</p> <p>2 to me.</p> <p>3 Q. Okay. You mentioned TCP/IP, I</p> <p>4 believe?</p> <p>5 A. Yes.</p> <p>6 Q. And that is a -- would you</p> <p>7 consider that -- sorry, strike that.</p> <p>8 Would you consider TCP/IP to be</p> <p>9 a type of transfer protocol?</p> <p>10 A. It's actually refers to the set</p> <p>11 of protocols that govern communications</p> <p>12 over the internet, so it includes a</p> <p>13 transfer protocol.</p> <p>14 Q. Okay.</p> <p>15 A. But it's not -- it's not -- not</p> <p>16 only that.</p> <p>17 Q. Understand, okay. And just</p> <p>18 again going through some of the</p> <p>19 terminology that's used in the</p> <p>20 provisional, there's references to proxy</p> <p>21 servers, are you familiar with that term?</p> <p>22 A. Yes.</p> <p>23 Q. And is it correct to say that</p> <p>24 those are not actual hard, like, physical</p> <p>25 servers, but are, like, software-based</p>
<p style="text-align: right;">Page 47</p> <p>1 but sitting here, I don't recall that</p> <p>2 term.</p> <p>3 Q. Okay. And I believe there is a</p> <p>4 reference in the provisional to a</p> <p>5 broadband back haul infrastructure, are</p> <p>6 you familiar with that?</p> <p>7 A. Certainly --</p> <p>8 MR. TYSON: Lack of foundation.</p> <p>9 A. Certainly broadband, but it</p> <p>10 didn't ring a bell. I'd be happy to -- if</p> <p>11 you want to direct me to the provisional,</p> <p>12 I'll be happy to take a look.</p> <p>13 Q. Yes, and at the next break, I'll</p> <p>14 be happy to find -- actually, I think I</p> <p>15 found at least one reference, again we're</p> <p>16 on page seven of 35 of Exhibit 4, the</p> <p>17 provisional, it's the second paragraph,</p> <p>18 and it says the roadside unit, RSU, is</p> <p>19 connected via a back haul link to a</p> <p>20 service node through the backbone network</p> <p>21 to a service delivery node.</p> <p>22 It's not the exact -- I think I</p> <p>23 referred to a back haul network, but is a</p> <p>24 back haul link something that you're</p> <p>25 familiar with?</p>	<p style="text-align: right;">Page 49</p> <p>1 servers, or am I getting that wrong?</p> <p>2 MR. TYSON: Objection to</p> <p>3 foundation.</p> <p>4 A. I think you're getting that</p> <p>5 wrong. A proxy server is a server that</p> <p>6 acts on behalf of a different server in</p> <p>7 order to increase network transmission</p> <p>8 speeds, things like that.</p> <p>9 Q. Okay. And proxy server would be</p> <p>10 considered a term of art, is that fair?</p> <p>11 A. Certainly.</p> <p>12 Q. Are there different types of</p> <p>13 proxy servers?</p> <p>14 A. Yes, depending on what function</p> <p>15 the proxy server's carrying out.</p> <p>16 Q. So on page 28 of 35 of Exhibit</p> <p>17 4, in figure three, it says system</p> <p>18 architecture, there's a reference to</p> <p>19 location proxy server, and there's three</p> <p>20 of them, actually.</p> <p>21 A. Three shown, although they</p> <p>22 represent N of them.</p> <p>23 Q. Correct, correct. Do you have</p> <p>24 an understanding of what is meant by</p> <p>25 location proxy server?</p>

<p style="text-align: right;">Page 50</p> <p>1 A. These are servers that are used 2 for storing and transmitting data to sets 3 of devices that are in a particular 4 geographical area. 5 Q. Okay. And had you heard of the 6 term location proxy server prior to your 7 involvement in this case? 8 A. I don't recall hearing that 9 term, but certainly I'm aware of proxy 10 servers that were used to serve particular 11 regions, geographical regions. 12 Q. And again, some more probably 13 basic terms that your first-year students 14 would probably be familiar with, but bear 15 with me if you don't mind, the term 16 content provider. 17 A. Certainly. 18 Q. How would you define that, 19 briefly, if it's possible? 20 A. It's typically a server or a set 21 of servers in which content is placed for 22 distribution to devices that ask for that 23 content. 24 Q. And is data provider different 25 than content provider or essentially</p>	<p style="text-align: right;">Page 52</p> <p>1 that data. 2 Q. And again, sorry for the basic 3 terminology that we're reviewing right 4 now, but network input/output units, what 5 do those refer to? 6 A. These -- in the context of this 7 provisional I don't recall where it 8 appears, it's just devices that are able 9 to transmit data, whether it's over the 10 air or over a wire and outside of the 11 context of provisional, does the term 12 network input/output unit have any 13 different meaning to you? 14 A. No, I/O, input/output, one would 15 understand that a network input/output 16 network would understand something that 17 transmits data over a network. 18 Q. And would it be fair to say that 19 would be a term of art? 20 A. I hadn't seen it before this 21 provisional, but I think one of skill 22 would understand those three words 23 together to be what I -- what I described 24 it. 25 Q. Okay. And user interface, is it</p>
<p style="text-align: right;">Page 51</p> <p>1 synonymous terms? 2 A. Well -- 3 MR. TYSON: Objection. 4 Foundation. 5 A. Content often is used 6 colloquially to mean the material that 7 people want to see or read themselves, 8 like web pages, and data could be 9 anything, but from a systems point of 10 view, whether content or data is meant to 11 be viewed by a user or not doesn't really 12 make a difference, so I have no problem 13 using those synonymously. 14 Q. Okay. And again, figure three 15 on page 28 of 35 of Exhibit 4 also refers 16 to data content aggregator, are you 17 familiar with that term? 18 A. Yes. 19 Q. And could you briefly describe 20 what that means? 21 A. In this -- in this case, in the 22 context of this provisional application, 23 it means a server, a set of servers that 24 are used to receive data from multiple 25 devices and to store and perhaps aggregate</p>	<p style="text-align: right;">Page 53</p> <p>1 fair to say that that is the, I didn't 2 want to say means, but that allows a user 3 to interact with a device? 4 A. Yes, it defines the mechanism by 5 which data is displayed to the user and 6 the mechanism by which the user provides 7 input to the computer or system. 8 Q. And are there different types of 9 user interfaces that are known currently? 10 A. Of course. 11 Q. And so a person skilled in the 12 art, if they needed a user interface, 13 there would be potentially some type of 14 software module that would address that 15 particular need that they could just -- 16 excuse me, plug and play -- 17 MR. TYSON: Objection. 18 Q. -- something along those lines? 19 MR. TYSON: I object to the 20 form. 21 Q. I can try and maybe ask it a 22 little more clearly. 23 But if a person skilled in the 24 art needed to implement a user interface 25 on a device, would there be known options</p>

<p style="text-align: right;">Page 54</p> <p>1 available to that person from which they 2 could select from?</p> <p>3 A. If a user knew exactly what they 4 wanted to display -- I'm sorry, not -- 5 when you say user, a developer.</p> <p>6 Q. Yes, correct.</p> <p>7 A. A developer of a system or 8 device knew exactly what information they 9 wanted to display to the user and in what 10 form, and what information they wanted to 11 receive back from the user and in what 12 form, they could either select existing 13 off-the-shelf software, user interface 14 software that performed those functions or 15 they could build it themselves using 16 frameworks provided by the devices such as 17 mobile phones for building user 18 interfaces.</p> <p>19 MR. TYSON: Off the record. 20 [Discussion held off the 21 record.]</p> <p>22 Q. Just one point just to kind of 23 make sure I'm clear for the record, 24 earlier you referred to the 899 patent and 25 the 292 patent, do you recall that?</p>	<p style="text-align: right;">Page 56</p> <p>1 Q. So then -- strike that. 2 If one had, like, a module of 3 software code that could perform some 4 functions, is that equivalent to an 5 application?</p> <p>6 MR. TYSON: I object to the 7 form.</p> <p>8 A. It depends what that software 9 code did. So an application is something 10 that provides information to a user. So 11 there's lots of software running on your 12 computer that you never see, such as the 13 operating system.</p> <p>14 Q. Yup.</p> <p>15 A. So that would not be considered 16 an application. An application is 17 something that performs a specific 18 function to provide a service to the user.</p> <p>19 Q. Okay. And as with user 20 interfaces, are there off-the-shelf 21 applications that a person skilled in the 22 art would be aware of that they could use 23 depending on their needs in developing 24 some type of network system? 25 A. Certainly.</p>
<p style="text-align: right;">Page 55</p> <p>1 A. Yes. 2 Q. And you see Exhibit 1, Goldberg 3 Exhibit 1 before you, is it all right if I 4 refer to that as the 899 patent?</p> <p>5 A. Yes.</p> <p>6 Q. And that's the patent you were 7 referring to earlier?</p> <p>8 A. Correct.</p> <p>9 Q. And likewise with Exhibit 2, if 10 I refer to that as the 292 patent going 11 forward?</p> <p>12 A. Yes.</p> <p>13 Q. Thank you. Are you familiar 14 with the term application?</p> <p>15 A. Certainly.</p> <p>16 Q. What is an application in the 17 context of computer science?</p> <p>18 A. It's a computer program intended 19 to provide some service to a user, and 20 when I say computer, of course I mean any 21 computing device such as a mobile phone or 22 a tablet.</p> <p>23 Q. So is an application an example 24 of a software program? 25 A. Yes.</p>	<p style="text-align: right;">Page 57</p> <p>1 Q. Can you think of any examples of 2 applications that might be useful in the 3 context of a network?</p> <p>4 MR. TYSON: I object to the 5 form.</p> <p>6 A. Well, there are -- certainly 7 there are web browsers, for example, that 8 allow users to retrieve documents, when 9 servers interact with web servers. There 10 are file transfer applications, I 11 mentioned FTP applications, that are used 12 for transferring files.</p> <p>13 I mean, there are numerous apps 14 that you can buy from the app store that 15 cause communication between a mobile 16 device and a server, so the answer is yes, 17 there's lots of off-the-shelf applications 18 you can buy to operate in the context of a 19 network.</p> <p>20 Q. And when you refer to web 21 browsers, that would include those that 22 are configured for mobile devices versus 23 PCs?</p> <p>24 A. Certainly. 25 Q. So Chrome on my Android phone,</p>

<p style="text-align: right;">Page 58</p> <p>1 would that be an example of an 2 application? 3 A. Yes. 4 Q. So is it fair to say application 5 is a term of art? 6 A. Yes. 7 Q. And I think we already covered 8 this, but if I recall correctly, you said 9 that a software program encompasses more 10 than what an application encompasses, the 11 latter being limited to providing 12 information to a user, is that fair? 13 MR. TYSON: Objection to the 14 form. 15 A. Yes, applications are an example 16 of software programs where they interact 17 with the user, and as I mentioned, there 18 are lots of software programs that are not 19 applications because they manage resources 20 on a device without the user being aware 21 of them. 22 Q. And I think we may have referred 23 to this, but mobile devices can have a 24 user interface, correct? 25 A. Mobile devices do have a user</p>	<p style="text-align: right;">Page 60</p> <p>1 have any software elements in addition to 2 the hardware component? 3 A. Well, there is certainly 4 software associated with a display that 5 actually causes the display of data on the 6 hardware display. 7 Q. And is it accurate that -- 8 strike that. 9 Is the software that can be 10 associated with a display similar to user 11 interface software in that there are a 12 variety of different software programs 13 available off the shelf that a person 14 skilled in the art could select if they 15 were trying to develop a display? 16 MR. TYSON: I object to the 17 form. 18 A. So the software that is 19 associated with the hardware display is 20 often called a driver, this is computer 21 code that knows about the particular 22 hardware and is able to interact with the 23 hardware. That driver then can be used by 24 either off-the-shelf user interface 25 software or custom user interface software</p>
<p style="text-align: right;">Page 59</p> <p>1 interface. 2 Q. Wouldn't be that effective if 3 they didn't, probably. 4 A. It would be ineffective. 5 Q. Yeah. Are you familiar with the 6 term user interface signal? 7 MR. TYSON: Objection. 8 Foundation. 9 A. I can understand it, but it 10 sounds like something -- sounds more 11 legalese than technical. 12 Q. And I'll make a note that 13 there's a reference somewhere in Exhibit 14 4, and I will find that during a break and 15 point you to it and see if that provides 16 any more clarification. 17 Would you consider display to be 18 a term of art in the computer science 19 field? 20 A. Yes, both the noun and the verb. 21 Q. With respect to the noun, how 22 would you define display in this field? 23 A. It's a hardware component that 24 allows data to be displayed to a user. 25 Q. Does the noun version of display</p>	<p style="text-align: right;">Page 61</p> <p>1 to cause the display of a particular 2 format that the user can see and interact 3 with. 4 Q. I just want to make sure I 5 understand that correctly, but is it fair 6 to say then that a display would have 7 associated software that would come along 8 with it in the form of a driver that a 9 person skilled in the art could then 10 implement with a desired user interface? 11 MR. TYSON: I object to the 12 form. 13 A. Let me just state, you had it 14 almost exactly right. 15 Q. Okay, please correct it for me. 16 A. Yes, associated with a display 17 is driver software that a developer can 18 then use to either build a custom user 19 interface or can find off-the-shelf user 20 interface code to effect a user interface. 21 Q. And again, the driver software 22 that is associated with the display, what 23 was the, again, the functionality that it 24 provides? 25 A. That's the -- the low level</p>

<p style="text-align: right;">Page 62</p> <p>1 functionality of telling the display which</p> <p>2 pixels of the display to turn on and off,</p> <p>3 the pixels being the little -- the dots on</p> <p>4 the screen.</p> <p>5 Q. Okay.</p> <p>6 A. And what color they should be.</p> <p>7 Q. So the driver would be involved</p> <p>8 any time something is displayed on the</p> <p>9 display?</p> <p>10 A. Certainly.</p> <p>11 Q. Okay.</p> <p>12 A. And then from that</p> <p>13 functionality, you build the user</p> <p>14 interface.</p> <p>15 Q. I think we kind of touched on</p> <p>16 this to a certain extent, but there are</p> <p>17 known technologies, such as user</p> <p>18 interfaces, databases, networks that are</p> <p>19 off the shelf -- excuse me, available off</p> <p>20 the shelf to use as components of a</p> <p>21 communications network, is that fair?</p> <p>22 MR. TYSON: Objection to form.</p> <p>23 A. That was a long one, would you</p> <p>24 mind reading that back.</p> <p>25 [The requested portion of the</p>	<p style="text-align: right;">Page 64</p> <p>1 knew what they wanted to display or</p> <p>2 communicate.</p> <p>3 Q. And likewise a person skilled in</p> <p>4 the art would have known about various</p> <p>5 types of databases that could be utilized</p> <p>6 in a communications network as well that</p> <p>7 were available off the shelf?</p> <p>8 A. Yeah, if -- if the user or the</p> <p>9 developer knew what data needed to be</p> <p>10 stored, they could choose an Oracle or a</p> <p>11 Microsoft database to store that data.</p> <p>12 Q. Okay. And with respect to the</p> <p>13 communication protocols that we discussed,</p> <p>14 a person skilled in the art would have</p> <p>15 known, depending on the protocol, what</p> <p>16 components of software would need to be</p> <p>17 installed on the, in the context of a the</p> <p>18 cellular network, a base station and a</p> <p>19 cell phone, is that fair?</p> <p>20 MR. TYSON: I object to the</p> <p>21 form.</p> <p>22 A. Yes, the -- so for example, if</p> <p>23 it was 3G that was available, certainly in</p> <p>24 2011, the user would know that once the</p> <p>25 communication chips were selected, what</p>
<p style="text-align: right;">Page 63</p> <p>1 record was read.]</p> <p>2 A. Yes.</p> <p>3 Q. And just to be clear, when I'm</p> <p>4 talking about available off-the-shelf</p> <p>5 technologies for use in communications</p> <p>6 network and asking if they are available,</p> <p>7 would you still agree that they were</p> <p>8 available as of 2011?</p> <p>9 MR. TYSON: I object to the</p> <p>10 form.</p> <p>11 Q. Around the filing date of the</p> <p>12 provisional.</p> <p>13 MR. TYSON: I object to the</p> <p>14 form.</p> <p>15 A. Yes.</p> <p>16 Q. And because of that, a person</p> <p>17 skilled in the art would be aware of</p> <p>18 various user interfaces that might be</p> <p>19 implemented as part of a communications</p> <p>20 network, correct?</p> <p>21 MR. TYSON: I object to the</p> <p>22 form.</p> <p>23 A. Yes, they would be aware of</p> <p>24 certain off-the-shelf software that could</p> <p>25 be used if the user -- if the developer</p>	<p style="text-align: right;">Page 65</p> <p>1 software packages would need to be</p> <p>2 installed in order to support the 3G</p> <p>3 protocol.</p> <p>4 Q. And the same would be true with</p> <p>5 respect to the Bluetooth protocol,</p> <p>6 correct?</p> <p>7 MR. TYSON: I object to the</p> <p>8 form.</p> <p>9 A. Yes.</p> <p>10 Q. Now, the messages that are sent</p> <p>11 in these communication networks, I believe</p> <p>12 we discussed that they're dictated, at</p> <p>13 least in part, by the particular protocol</p> <p>14 that's being used, is that right?</p> <p>15 A. Some of them, yes. The hand --</p> <p>16 so-called handshaking messages are</p> <p>17 dictated by the standard.</p> <p>18 Q. And would a person skilled in</p> <p>19 the art have understood that there were a</p> <p>20 variety of known message types that could</p> <p>21 be utilized in a network?</p> <p>22 A. The standards define the</p> <p>23 different types of messages that can be</p> <p>24 sent, not necessarily the content, but the</p> <p>25 types of the messages.</p>

<p style="text-align: right;">Page 66</p> <p>1 Q. And the messages themselves, 2 they contain information, correct? 3 MR. TYSON: I object to the 4 form. 5 A. Yes. 6 Q. For lack of a better word. 7 A. That's a perfectly good word. 8 Q. And some of the messages, too, 9 they have a software component, would you 10 say, to them? 11 A. No, they -- they're just data, 12 they're bits. 13 Q. Bits. Would you consider 14 messages in the context of a 15 communications network to be a term of 16 art? 17 A. Yes, it's a very general term of 18 art, but it is a term of art. 19 Q. So I want to go back to the 20 discussion of protocols, and I know that 21 you said that there are thousands of rules 22 and many protocols, and that it's complex, 23 but in terms of what you can recall, are 24 you aware of any protocols that involve 25 sending a notification to -- strike that.</p>	<p style="text-align: right;">Page 68</p> <p>1 protocols, if you had to just ballpark and 2 just in a rough sense, like how many 3 different communications protocols do you 4 think there are in existence? 5 A. So if you're defining 6 communication protocol as a single -- a 7 single collection of standards that all 8 work together to implement one network 9 system, so for example LTE or 3G, so I 10 would consider each of those a protocol 11 that are -- that provide thousands of 12 rules that the devices must follow in 13 order to implement that protocol. 14 And so if the protocol is that 15 at the level of LTE or 3G or 2G, you know, 16 I don't know how many are out there, but 17 I'm aware of 20 or 30 of them. 18 Q. Okay. 19 A. And each one is supported by 20 hundreds or thousands of rules. 21 Q. Okay. So I would like to walk 22 through some of the claims in the patent 23 suit, Exhibit 1 and Exhibit 2. And first 24 I'd like to go to claim one of the 899 25 patent. And I want to focus on a specific</p>
<p style="text-align: right;">Page 67</p> <p>1 Just to take a step back for 2 terminology, when I refer to a 3 communications network, if I refer to, 4 like, a receiving node, is it all right to 5 use that as a generic term, it could be a 6 cell phone or some other -- like a laptop 7 or a desktop -- 8 A. Yes. 9 Q. -- is that fair? 10 A. Yes, I understand that. 11 Q. So are you aware of any 12 communication protocols that would -- 13 strike that. 14 Are you aware of any 15 communication protocols where the 16 receiving node is provided an advanced 17 notification that it will be receiving a 18 message? 19 A. Sitting here, I don't recall, 20 I'd have to look at the standards for the 21 various communication protocols. 22 Q. Okay. And I know you mentioned 23 thousands of rules, I wasn't clear -- it 24 wasn't clear to me if you also were saying 25 there's thousands of communication</p>	<p style="text-align: right;">Page 69</p> <p>1 term that's in dispute, and I believe it's 2 term number six in the numbering scheme 3 that the parties have used, and I can get 4 you the document that will have that for 5 you, just one second. 6 MR. DAHLGREN: I believe we are 7 on Goldberg 5. 8 [Whereupon, at this time, the 9 reporter marked as Goldberg Exhibit 5 10 the above-mentioned numbered list of 11 disputed claim terms for 12 identification.] 13 Q. And Dr. Goldberg, have you seen 14 Goldberg Exhibit 5 before? 15 A. Not that I can recall, no. 16 Q. If you want to take a moment 17 just to review it, my understanding is 18 it's like a numbering convention for the 19 disputed claim terms, and I was just going 20 to use this numbering to try to make 21 things a little more clear on the record. 22 A. Okay, that's fine. 23 Q. So the first term I would like 24 to discuss is number six. 25 A. Yes.</p>

<p style="text-align: right;">Page 70</p> <p>1 Q. And if you look at Goldberg 2 Exhibit 1, it's the 899 patent, starting 3 with claim one that's in column 29 of 4 Exhibit 1, the 899 patent. 5 A. Yes. 6 Q. And whenever you're there, just 7 let me know. 8 Around line 48 in column 29 of 9 Exhibit 1, the 899 patent, it says an 10 application configured for execution. 11 A. I see that. 12 Q. And later around line 51 says 13 the application, when executed, configured 14 to cause the at least one mobile device to 15 display of an option via display of the at 16 least one mobile device, and is it your 17 understanding that that corresponds to 18 term six as it pertains to claim one of 19 the 899 patent? And again, you can 20 reference Goldberg Exhibit 5. 21 A. Yes, that -- that does appear to 22 correspond to term number six. 23 Q. So I just wanted to walk through 24 the claim and kind of see what is in here 25 and try to unpack it a little bit.</p>	<p style="text-align: right;">Page 72</p> <p>1 Q. I see. Referring to the a 2 display, I believe you said earlier that 3 there was some driver software that was 4 associated with the displays that would -- 5 is that correct? 6 A. Yes. 7 Q. And so the reference to a 8 display here in claim one of 899 patent 9 would necessarily inform a person skilled 10 in the art that there was some driver 11 software associated with it, is that fair? 12 A. Yes. 13 Q. And above, it's around line 50, 14 do you see a reference to at least one 15 broadcast short-range -- 50, 51, sorry, at 16 least one broadcast short-range 17 communications unit? 18 A. Yes. 19 Q. And do you understand that to 20 also connote structure? 21 A. Yes, it's a device, it's able to 22 communicate via broadcasting in typically 23 short range, a short-range protocol. 24 Q. And I believe we discussed 25 earlier that there are a variety of</p>
<p style="text-align: right;">Page 71</p> <p>1 With respect to term six, 2 there's a reference to a mobile device, 3 correct? 4 A. Yes. 5 Q. And you would agree that a 6 mobile device is structure, is that fair? 7 A. Yeah, it's something that is 8 identifiable to somebody reading this 9 claim. 10 Q. Okay. And the display of the at 11 least one mobile device, you would agree 12 that's another identifiable component of 13 the structure, is that correct? 14 A. I think that's fair. I would 15 know what is meant by display of the at 16 least one mobile device, yes. 17 Q. By reference of -- excuse me, 18 where it says a display, you'd understand 19 that to be the noun versus the verb 20 display that we were discussing earlier? 21 A. Yes, the verb comes at the 22 beginning of that, that element. 23 Q. Correct, both forms are in 24 there. 25 A. Yes.</p>	<p style="text-align: right;">Page 73</p> <p>1 different software applications that are 2 available, and that one could select an 3 application that would be used to 4 facilitate the display of information on 5 the noun display of the device? 6 MR. TYSON: I object to the 7 form. 8 Q. And I think user interfaces were 9 one example of the applications that you 10 mentioned. 11 A. So if I as a developer knew what 12 I wanted to display on a mobile device, I 13 could select software that I could 14 configure to display what I wanted to 15 display on the mobile device. 16 Q. Okay. And if you look on -- 17 well, if you generally read through claim 18 one, you agree there are also references 19 to at least one server as well, correct? 20 A. Well, starting at line 14 at 21 column 30, I see that. 22 Q. Okay. And if you look at line 23 35 of column 30, you see a reference to 24 said application, do you see that? 25 A. I do.</p>

<p style="text-align: right;">Page 74</p> <p>1 Q. And do you understand that to 2 refer to the application that is part of 3 disputed claim term six? 4 A. Yes, specifically the 5 application first mentioned at column 20, 6 line 48. 7 Q. And if you also go back to 8 column 29, it is the, let's see, beginning 9 around line 58, and this is Exhibit 1, 899 10 patent, in that paragraph, you see a 11 reference to broadcast short-range 12 communications unit and via the Bluetooth 13 wireless communications protocol, do you 14 see that? 15 A. I do. 16 Q. And so would you agree that a 17 person skilled in the art would understand 18 that the application being referred to in 19 disputed claim term six is compatible with 20 the Bluetooth wireless communications 21 protocol? 22 MR. TYSON: I object to the 23 form. If there's a question, we need 24 it repeated. 25 MR. DAHLGREN: If you wouldn't</p>	<p style="text-align: right;">Page 76</p> <p>1 application, as we have discussed, one of 2 skill would understand to be software. 3 Q. Understand. 4 A. I'm -- 5 Q. Let me try and ask the question, 6 maybe -- or try to ask a slightly 7 different question. 8 The reference to the Bluetooth 9 wireless communications protocol in claim 10 one would inform one of skill in the art 11 that the mobile device had software on it 12 that allowed it to be compliant with the 13 Bluetooth wireless communications 14 protocol? 15 A. Let me just note, Mr. Dahlgren, 16 that starting on page 33 is where I 17 address this question. I'm just going to 18 review it to -- 19 Q. Sure, sure. 20 A. -- to refresh my recollection. 21 The best I can tell is that this 22 claim requires that a message was received 23 via the Bluetooth wireless communication 24 protocol, and that the application is 25 running on the mobile device is configured</p>
<p style="text-align: right;">Page 75</p> <p>1 mind, if it's possible to read my 2 question back, and if it was poorly 3 worded, I will take another shot at 4 it. 5 [The requested portion of the 6 record was read.] 7 MR. TYSON: I object to the 8 form. 9 A. I would agree that the claimed 10 application is able to receive an 11 indication of a receipt of one or more 12 messages that appear to have been sent via 13 the Bluetooth communications protocol. 14 Q. So a person of ordinary skill in 15 the art would understand that the mobile 16 device and the application by virtue of 17 using the Bluetooth wireless 18 communications protocol would have some 19 software on it that allowed it to do so as 20 we discussed earlier? 21 MR. TYSON: I object to the 22 form. 23 A. The claim says the application 24 is configured to receive an indication of 25 a receipt of the message. The</p>	<p style="text-align: right;">Page 77</p> <p>1 to receive an indication of that receipt, 2 and so it doesn't say anything about the 3 receiving of an indication being part of 4 the Bluetooth protocol. 5 Q. Sure, sure. If you look at the 6 claim element above where it says an 7 application and it starts with 8 rebroadcast, and it's line 35, column 29, 9 Exhibit 1, the 899 patent, and it states 10 rebroadcast without solicitation and via 11 the Bluetooth wireless communications 12 protocol, the one or more messages 13 including the address portion and the 14 identifier including the at least three 15 fields and the at least one value for the 16 unsolicited broadcasting thereof for 17 intended receipt by any of the plurality 18 of mobile devices in the communication 19 range of the at least one broadcast 20 short-range communications unit, do you 21 see that? 22 A. I do. 23 Q. Does that clarify that the 24 mobile devices are capable of receiving 25 Bluetooth messages -- excuse me, messages</p>

<p style="text-align: right;">Page 78</p> <p>1 via the Bluetooth wireless communications 2 protocol? 3 A. I think it's fair as claimed 4 that the -- to say that the system 5 includes these broadcast short-range 6 communications unit that send messages via 7 the Bluetooth protocol to the mobile 8 device, and since the claim also says that 9 the application received an indication of 10 a receipt of the one or more messages, I 11 think it's -- it's fair to say that the 12 messages could be received by a mobile 13 device via the Bluetooth protocol, so the 14 message itself -- 15 Q. Correct? 16 A. -- could be received by mobile 17 device via the Bluetooth protocol. 18 Q. And in that case, the mobile 19 device would have some software component 20 that allowed it to participate in the 21 Bluetooth communications protocol, is that 22 fair? 23 MR. TYSON: I object to the 24 form. 25 A. I think that's fair.</p>	<p style="text-align: right;">Page 80</p> <p>1 protocol, is that fair? 2 MR. TYSON: I object to the 3 form. 4 A. Yes. The application could 5 cause the mobile device to receive a 6 response message via another wireless 7 communications protocol, then I think it's 8 fair to say that the mobile device is able 9 to communicate using that wireless 10 communications protocol. Is that what 11 your question was? 12 Q. Yes, and I guess maybe even 13 taking a step further, because it said 14 that application, when executed, 15 configured to cause at least one mobile to 16 receive, I paraphrase, the message, that 17 the application itself would have some 18 software component that allowed it to 19 participate in that particular wireless 20 communications protocol? 21 A. Well, not necessarily. It just 22 needs to cause the mobile device to be 23 able to, so the mobile device would need 24 to have software on it that enabled it to 25 receive a message via that communications</p>
<p style="text-align: right;">Page 79</p> <p>1 Q. And going back to column 30 of 2 the 899 patent on Exhibit 1, around line 3 35, this is the said application when 4 executed, further configured to cause at 5 least one mobile device to receive from 6 the at least one server and via another 7 wireless communications protocol the 8 response message, do you see that? 9 A. Yes. 10 Q. And we had talked earlier about 11 how the reference to said application was 12 referring to the application in disputed 13 claim term six, is that right? 14 MR. TYSON: I object to the 15 form. 16 A. That's correct. 17 Q. And so because the application 18 is configured to cause the at least one 19 mobile device to receive a message via 20 another wireless communications protocol, 21 a person skilled in the art would 22 understand that there would be some 23 software component involved with the 24 application that allowed it to participate 25 in that particular wireless communication</p>	<p style="text-align: right;">Page 81</p> <p>1 protocol. 2 Q. Okay. Okay. But you would 3 agree that the reference to the various 4 communication protocols would mean that a 5 person skilled in the art, knowing which 6 protocols are being referred to, would 7 understand that there's particular 8 software components that would be on the 9 mobile devices that allowed them to 10 participate in that protocol? 11 MR. TYSON: I object to the 12 form. 13 Q. And let me break that down. 14 A. Okay. 15 Q. Earlier we discussed that with 16 respect to these communications protocols, 17 that there is a software component that 18 would reside on the, let's say, mobile 19 device that would be receiving a message 20 so that they could participate in the 21 protocol. 22 A. Yes, if the mobile device 23 supports a particular communication 24 protocol, there is software on that mobile 25 device that supports the receiving of a</p>

<p style="text-align: right;">Page 82</p> <p>1 message using that protocol.</p> <p>2 Q. And if a person skilled in the</p> <p>3 art knew which protocol was being</p> <p>4 implemented, they would be able to</p> <p>5 ascertain what software component was</p> <p>6 needed for the mobile device, is that</p> <p>7 fair?</p> <p>8 MR. TYSON: I object to the</p> <p>9 form.</p> <p>10 A. It's fair to say that given that</p> <p>11 the mobile device supports a particular</p> <p>12 communications protocol, one of skill</p> <p>13 would know what software is running on</p> <p>14 that mobile device to support that</p> <p>15 communications protocol.</p> <p>16 Q. Okay. Earlier we talked about</p> <p>17 applications being, you know, a term of</p> <p>18 art referring to web browsers, file</p> <p>19 transfer applications, Chrome, as an</p> <p>20 example -- strike that, strike that</p> <p>21 question, please.</p> <p>22 There's also a reference to, and</p> <p>23 again, this is in column 30 -- strike</p> <p>24 that.</p> <p>25 Going back to column 29, and</p>	<p style="text-align: right;">Page 84</p> <p>1 and the type of message, one of skill</p> <p>2 would understand the format of the</p> <p>3 message, but of course wouldn't know what</p> <p>4 the content is.</p> <p>5 Q. Would you consider the format of</p> <p>6 a message to be structure in the context</p> <p>7 of the claim?</p> <p>8 A. For a given communications</p> <p>9 protocol, the format of a message is one</p> <p>10 aspect of structure, in other words, how</p> <p>11 one communicates. Again, it doesn't say</p> <p>12 anything about the content of the message.</p> <p>13 Q. Understand, yeah, understand.</p> <p>14 So just to recap, some of the</p> <p>15 structural elements that we identified in</p> <p>16 claim one, we have mobile device, a</p> <p>17 display of a mobile device, the broadcast</p> <p>18 short-range communications unit, reference</p> <p>19 to a server, there was reference to</p> <p>20 various communication protocols, and</p> <p>21 finally, we just discussed the message,</p> <p>22 and the message pursuant to protocol</p> <p>23 having a format.</p> <p>24 A. So -- so the particular format</p> <p>25 of a message for a particular protocol is</p>
<p style="text-align: right;">Page 83</p> <p>1 looking at -- it's line 61, the</p> <p>2 application receives an indication of a</p> <p>3 receipt of one or more messages, to</p> <p>4 paraphrase that limitation, do you see</p> <p>5 that?</p> <p>6 A. I see that passage, yes.</p> <p>7 Q. And earlier we talked about</p> <p>8 messages, and messages are a term of art,</p> <p>9 correct?</p> <p>10 A. Yes.</p> <p>11 Q. And messages can have specific</p> <p>12 formats depending on the protocols that</p> <p>13 are being used, correct?</p> <p>14 A. Yes.</p> <p>15 Q. And if a person skilled in the</p> <p>16 art knew of the particular protocol being</p> <p>17 used would -- strike that.</p> <p>18 A person skilled in the art,</p> <p>19 knowing the protocol, would then</p> <p>20 understand the makeup of the message that</p> <p>21 was being sent pursuant to that protocol,</p> <p>22 is that fair?</p> <p>23 MR. TYSON: I object to the</p> <p>24 form.</p> <p>25 A. Depending on the protocol used</p>	<p style="text-align: right;">Page 85</p> <p>1 one aspect of -- of structure, yes.</p> <p>2 Q. Okay. And the other elements</p> <p>3 that I mentioned, mobile device, display,</p> <p>4 you would agree that those are structural</p> <p>5 aspects as well?</p> <p>6 A. Yes, I believe so.</p> <p>7 Q. And also when we refer to the</p> <p>8 communications protocol itself, that</p> <p>9 provides information on the structural</p> <p>10 aspects?</p> <p>11 MR. TYSON: I object to the</p> <p>12 form.</p> <p>13 A. Well, certainly Bluetooth does</p> <p>14 provide structure about certain -- certain</p> <p>15 aspects of the claim, and given the term</p> <p>16 communications protocol, one of skill</p> <p>17 would know what the range of choices are</p> <p>18 for communication protocols, they could</p> <p>19 fill that in with their knowledge.</p> <p>20 Q. Okay. There are -- and I think</p> <p>21 we talked about this, you said 20 or 30</p> <p>22 protocols that you're familiar with.</p> <p>23 A. Yes, but only a handful are</p> <p>24 widely used.</p> <p>25 Q. Understand, okay. I think it's</p>

<p style="text-align: right;">Page 86</p> <p>1 going to be largely the same, but for 2 disputed claim term six, I believe -- 3 yeah, claims one, seven, nine and 11 of 4 the 899 patent, which is Exhibit 1, were 5 identified, if you wouldn't mind, I'd just 6 like to turn to claims seven, nine and 11, 7 and just have you confirm that the same 8 aspects that we discussed with respect to 9 claim one are present, though I'll note 10 that seven and nine refer to computer code 11 as opposed to application, so setting that 12 difference aside, if the other aspects are 13 present. 14 MR. TYSON: I object to the 15 form. 16 A. Do you want to -- just to make 17 sure we're on the same page, do you want 18 to list what aspects you're talking about? 19 Q. Sure. So with claim seven, it's 20 on column 31 of the 899 patent, which is 21 Exhibit 1, we have at the very bottom of 22 31 computer code configured for execution 23 by at least one of the plurality of mobile 24 devices in the communication range of the 25 at least one broadcast short-range</p>	<p style="text-align: right;">Page 88</p> <p>1 message, do you see that? 2 A. I do. 3 Q. And so there we have the server 4 and we have a second communications 5 protocol, a wireless communications 6 protocol. 7 A. Yes. 8 Q. And we also have the message as 9 well. 10 A. I see that. 11 Q. And you'd agree that those are 12 all structural aspects, connote structural 13 aspects with respect to the claim, is that 14 fair? 15 A. When you say all, talk about 16 just the -- what you just mentioned, the 17 computer code -- well, and then you said 18 the second communication -- second 19 wireless communication protocol? 20 Q. Yes, the two protocols, I was 21 kind of referring to everything all 22 together in the context of the claim that 23 it provides aspects of structure to the 24 claim. Like the protocols would dictate 25 that the mobile devices have certain</p>
<p style="text-align: right;">Page 87</p> <p>1 communications unit. The computer code 2 when executed configured to cause display 3 of an option via a display of the at least 4 one mobile device. 5 So there we have mobile device, 6 we have broadcast short-range 7 communications unit and we have a display 8 of a mobile device, correct? 9 A. Yes. 10 Q. And if you look at, again, it's 11 column 31, but it's line 53, talking about 12 broadcast via a short-range first wireless 13 communications protocol, and messages, and 14 I'm paraphrasing here, but intended for, 15 received by any of the plurality of mobile 16 devices. So you see that there's a 17 reference to this short-range first 18 wireless communications protocol? 19 A. I see that. 20 Q. And if you look at column 32, 21 it's line, I'd say, around 42, said 22 computer code, when executed, further 23 configured to receive from the at least 24 one server and via the second wireless 25 communications protocol the response</p>	<p style="text-align: right;">Page 89</p> <p>1 software so they can participate with the 2 protocol, is that correct? 3 A. That's correct. 4 Q. The protocol would dictate that 5 the message has a particular format? 6 A. Yes, again, format, not content, 7 that's correct. 8 Q. And there is the other computer 9 code, the mobile device, the other 10 display, reference to the server that's in 11 communication with the mobile device, the 12 computer card. 13 A. So a server's a machine, 14 computer code, of course, can be used to 15 do anything, but I don't think we -- we 16 talked about computer code, because it 17 didn't appear in the claim one. 18 Q. Correct, correct. 19 A. Right. 20 Q. And that's why I said that I 21 believe it's seven and nine refer to 22 computer code -- 23 A. Okay. 24 Q. -- versus application, so 25 setting that difference aside, the other</p>

<p style="text-align: right;">Page 90</p> <p>1 structural aspects of claim one that we 2 discussed -- 3 A. Okay. 4 Q. -- are generally present in 5 claim seven? 6 A. The other ones, yes. 7 Q. I just would like to confirm the 8 same with respect to claim nine, and I'm 9 happy to walk through it or if you just 10 want to review and say that you agree that 11 the same structural aspects are present, 12 that's fine as well, whichever's easier 13 for you. 14 A. Well, so claim nine has 15 reference to a short-range first wireless 16 communications protocol, and so knowing 17 that there's a communications protocol 18 being used, you would know that there's 19 software on the phone. 20 And you would further know that 21 messages happen to have a certain format. 22 Q. Yes, and also if you look at 23 column 34 where it says said computer 24 code, it refers to a second wireless 25 communications protocol, so that would be</p>	<p style="text-align: right;">Page 92</p> <p>1 A. So the -- yeah, connotes certain 2 aspects of structure, I agree with that. 3 Q. And actually, if I could just 4 turn your attention to -- it's column 34, 5 line -- around 38, it talks about -- I'll 6 read this, the full quotation beginning at 7 35, after the particular location-relevant 8 information is located based on the at 9 least one value caused to be sent to the 10 at least one mobile device and via the 11 internet protocol a response message. 12 A. Okay. 13 Q. So the fact that the mobile 14 device can receive a response message via 15 the internet protocol, would that 16 similarly inform a person skilled in the 17 art that there's some software component 18 on the mobile device that allows it to 19 receive such a message? 20 A. Well, it says it specifically at 21 line 44 of column 34 starting line 44 that 22 the computer code, which is configured for 23 execution by a mobile device, is further 24 configured to receive the response message 25 via -- I'm sorry, take that back, that</p>
<p style="text-align: right;">Page 91</p> <p>1 another example? 2 A. And that would dictate a 3 particular message format as well. 4 Q. And so that would apply in this 5 case to the response message that is 6 around line 46 of column 34 of the 899 7 patent, right? 8 A. Yes, again, that would dictate 9 the formats, but not content. 10 Q. Understand. And again, there's 11 a reference to server that's in 12 communication with the mobile devices? 13 A. Yes. 14 Q. And we have the mobile device 15 and we also have the display of the mobile 16 device is also present in the claim? 17 A. Correct. 18 Q. And there's also the broadcast 19 short-range communications unit that's 20 referenced in claim nine as well as claims 21 one and seven? 22 A. Yes. 23 Q. And those, again, all connote 24 some degree of structure for the claim, is 25 that fair?</p>	<p style="text-align: right;">Page 93</p> <p>1 doesn't mention in that protocol. 2 Q. Yes, it just appeared to me that 3 there were three protocols, at least being 4 referenced in claim nine, and the only 5 point being that as we discussed, the 6 protocols -- a person skilled in the art 7 would understand that by using a protocol, 8 there's a software component associated 9 with the receiving device? 10 A. Yeah, I would -- what I would 11 say is the claim element starting at 12 column 34, line 43 -- I'm sorry, line 44, 13 indicates that there is software for 14 receiving messages via wireless 15 communications protocol on the mobile 16 device. 17 Q. And that would connote some 18 degree of structure, correct? 19 A. Yes, to some degree. 20 Q. And I think now we can turn to 21 claim 11, and this one does refer to 22 application like claim one. It's 23 beginning on the bottom -- yeah, towards 24 the bottom of column 35 of the 899 patent. 25 A. Can you ask the question again?</p>

<p style="text-align: right;">Page 94</p> <p>1 Q. Sure, I just would like you to</p> <p>2 review claim 11, and again, I just want to</p> <p>3 go over the same kind of structural</p> <p>4 components that we discussed with respect</p> <p>5 to claims one, seven and nine. We have</p> <p>6 broadcast short-range communications unit?</p> <p>7 A. Yes.</p> <p>8 Q. We have first wireless</p> <p>9 communications protocol?</p> <p>10 A. Yes.</p> <p>11 Q. Messages according to that</p> <p>12 protocol that are intended for receipt by</p> <p>13 mobile devices, is that correct?</p> <p>14 I'm sorry, I was looking at the</p> <p>15 limitation on column 35, beginning at line</p> <p>16 54.</p> <p>17 A. Yes, so -- yes, so it claims</p> <p>18 broadcasting by a first wireless</p> <p>19 communication protocol, one or more</p> <p>20 messages, they're intended to be received</p> <p>21 by mobile devices.</p> <p>22 Q. And so that would indicate that,</p> <p>23 one, the messages have a particular format</p> <p>24 according to that first wireless</p> <p>25 communications protocol, correct?</p>	<p style="text-align: right;">Page 96</p> <p>1 have -- it was, I think you said, and I</p> <p>2 don't want to get it wrong, some driver</p> <p>3 software associated with it?</p> <p>4 A. Yes.</p> <p>5 Q. So there would be some</p> <p>6 additional -- strike that.</p> <p>7 A person skilled in the art</p> <p>8 would understand that by virtue of</p> <p>9 referencing a hardware display, that it</p> <p>10 would also include a software component,</p> <p>11 specifically the driver for the display?</p> <p>12 A. Yes.</p> <p>13 Q. And I think we said that that</p> <p>14 driver essentially allows, like, the image</p> <p>15 to be depicted on the display, like which</p> <p>16 pixels light up and things like that,</p> <p>17 correct?</p> <p>18 A. Correct. You know, the</p> <p>19 developer would have to determine what</p> <p>20 needs to be displayed, but then the driver</p> <p>21 code could be used to affect whatever</p> <p>22 image the developer chooses.</p> <p>23 Q. And are there -- strike that.</p> <p>24 We also have a reference to a</p> <p>25 server in claim 11?</p>
<p style="text-align: right;">Page 95</p> <p>1 A. I would agree with that.</p> <p>2 Q. And two, it would indicate that</p> <p>3 the mobile devices have some software</p> <p>4 component that allows them to participate</p> <p>5 in that first wireless communications</p> <p>6 protocol?</p> <p>7 A. I think that's fair, yes.</p> <p>8 Q. And also we have an application,</p> <p>9 this is at line 65 of column 35 of the 899</p> <p>10 patent, and again similar to claim one, an</p> <p>11 application configured to be executed by</p> <p>12 at least one of the plurality of mobile</p> <p>13 devices, the application, when executed,</p> <p>14 configured to cause display of an option</p> <p>15 via a display of the at least one mobile</p> <p>16 device.</p> <p>17 A. I see that.</p> <p>18 Q. And so again, we have the mobile</p> <p>19 device and we have the display of the</p> <p>20 mobile device, so there are structural</p> <p>21 components in the claim?</p> <p>22 A. So a mobile device and its</p> <p>23 hardware display, yes, is a -- is an</p> <p>24 aspect of structure.</p> <p>25 Q. And the hardware display would</p>	<p style="text-align: right;">Page 97</p> <p>1 A. Yes.</p> <p>2 Q. And we have reference to</p> <p>3 internet protocol as well, it's around 24</p> <p>4 of column 36, it calls out the mobile</p> <p>5 device application actions, around 29.</p> <p>6 A. Okay. Is there a question?</p> <p>7 Q. Sorry, and mobile device</p> <p>8 application, you'd agree, is referring to</p> <p>9 the application referred to on line 65 of</p> <p>10 column 35 of the 899 patent?</p> <p>11 A. Yes, that's the way I read it.</p> <p>12 Q. Okay. And also again on column</p> <p>13 36, said application when executed further</p> <p>14 configured to receive from the at least</p> <p>15 one server and via the second wireless</p> <p>16 communication protocol the response</p> <p>17 message, so we have another communications</p> <p>18 protocol and a message that a person who</p> <p>19 is skilled in the art would be formatted</p> <p>20 according to that protocol, correct?</p> <p>21 A. Yes.</p> <p>22 Q. And a person with skill in the</p> <p>23 art would also understand that the mobile</p> <p>24 device would have to be -- would have a</p> <p>25 software component that would allow it to</p>

<p style="text-align: right;">Page 98</p> <p>1 participate in that second wireless 2 communications protocol, right? 3 A. Yes. 4 Q. So you would agree that claim 11 5 has essentially the same structural 6 components that we discussed with respect 7 to claims one, seven and nine with the 8 exception of the difference between 9 application and computer code, is that 10 fair? 11 A. Yes, these -- the claims that we 12 reviewed do have the elements that we've 13 discussed that provide some structure. 14 Q. And you would agree that the -- 15 taking claim 11, for example, that the 16 later reference to said application or 17 mobile device application, that that would 18 inform what was being referred to as the 19 an application on line 65 of column 35? 20 MR. TYSON: I object to the 21 form. 22 A. Well, I would say those 23 references to said application and mobile 24 device application refers to the an 25 application introduced on line 65 of</p>	<p style="text-align: right;">Page 100</p> <p>1 a lunch break or not. I could -- I 2 was going to go into seven, disputed 3 seven, which is just 292, but we can 4 do that after we get a bite to eat or 5 now, just power through if you want, 6 till one o'clock. 7 MR. TYSON: I think we can do a 8 short -- 9 THE WITNESS: I'm okay either 10 way. 11 MR. TYSON: Let's just go off 12 the record and we'll figure it out. 13 [Discussion held off the 14 record.] 15 Q. So Dr. Goldberg, if you could 16 turn to Exhibit 2, that's the 292 patent, 17 and we're going to be discussing disputed 18 claim term seven, and if we look at 19 Goldberg Exhibit 5, claims one, 15 and 28 20 were identified, so we'll be looking at 21 those claims, and again, just identifying 22 some of the structural aspects that are 23 present in the claim. 24 A. Okay. 25 Q. So beginning with claim one, and</p>
<p style="text-align: right;">Page 99</p> <p>1 column 35. 2 Q. Okay. And so to the extent that 3 the later references in the claim include 4 additional structural components, like 5 compliant with a different communications 6 protocol, that that would inform the 7 application that is part of disputed claim 8 six, is that fair? 9 MR. TYSON: I object to the 10 form. 11 A. It would describe some aspects, 12 some additional aspects of the application 13 mentioned in disputed claim six, of course 14 only some of the aspects. 15 Q. Understood, but it would give a 16 person skilled in the art some information 17 about the structure and meaning of the 18 application, fair? 19 MR. TYSON: I object to the 20 form. 21 A. It would give some additional 22 information, I agree with that. 23 MR. DAHLGREN: Now there is a 24 disputed -- well, I don't know what 25 time it is, if this is a good time for</p>	<p style="text-align: right;">Page 101</p> <p>1 I guess let's just walk through it 2 beginning on column 30 of the 292 patent, 3 the actual disputed term seven is in 4 column 31, but we'll get to that, but I 5 just want to walk through what's present 6 in the claim. 7 You have a broadcast short-range 8 communications unit, do you see that, 9 around lines, like, 43? 10 A. I do. 11 Q. Okay. We also have a first 12 wireless communications protocol, and 13 broadcast messages intended for receipt by 14 a plurality of mobile devices, do you see 15 that? 16 A. I do, in column 30 around lines 17 46 to 51. 18 Q. And like we discussed before, 19 the communications protocol would require 20 some software on the mobile device and it 21 would also inform the format of the 22 message, correct? 23 A. Yes. 24 Q. And we have a second broadcast 25 short-range communications unit as well</p>

<p style="text-align: right;">Page 102</p> <p>1 around line 58, column 30.</p> <p>2 A. Yes.</p> <p>3 Q. And we have mobile devices, and</p> <p>4 then going now, looking at around line</p> <p>5 seven of column 31, this is, what I</p> <p>6 believe is identified as disputed claim</p> <p>7 term seven, but it's a -- it says code</p> <p>8 configured to be executed by at least one</p> <p>9 of the plurality of mobile devices, the</p> <p>10 code, when executed configured to cause</p> <p>11 display via display of the at least one</p> <p>12 mobile device of an option for causing</p> <p>13 first visual information and second visual</p> <p>14 information to be output via the at least</p> <p>15 one mobile device.</p> <p>16 A. I see that.</p> <p>17 Q. And so there we have mobile</p> <p>18 devices having code, and the display of</p> <p>19 the mobile device, correct?</p> <p>20 A. Yes.</p> <p>21 Q. And we know that the code of the</p> <p>22 mobile devices is informed by the</p> <p>23 communications protocols that are --</p> <p>24 reside in the claim, correct?</p> <p>25 MR. TYSON: I object to the</p>	<p style="text-align: right;">Page 104</p> <p>1 least in part at least one message.</p> <p>2 A. Yes.</p> <p>3 Q. So I think that clarifies that</p> <p>4 it's using, in part, the internet</p> <p>5 protocol.</p> <p>6 A. Yeah, the server is, yes.</p> <p>7 Q. And because the mobile device is</p> <p>8 receiving the message from the server</p> <p>9 that's using the internet protocol, would</p> <p>10 the mobile device also have to be</p> <p>11 configured with some type of software to</p> <p>12 allow it to participate in that protocol?</p> <p>13 A. Yes, the mobile device would</p> <p>14 need to have software on it.</p> <p>15 Q. So the internet protocol would</p> <p>16 inform the structure of the server as well</p> <p>17 as the mobile device, is that fair?</p> <p>18 A. Some aspects of the structure of</p> <p>19 the mobile device and the server, yes.</p> <p>20 Q. I want to make sure I didn't</p> <p>21 miss any other protocols, but you would</p> <p>22 agree that there is at least substantial</p> <p>23 similarity between the structural aspects</p> <p>24 that are recited in claim one of the 292</p> <p>25 patent as compared to those that we</p>
<p style="text-align: right;">Page 103</p> <p>1 form.</p> <p>2 A. Well, I think as we discussed</p> <p>3 before, that given a communications</p> <p>4 protocol, one of skill would know that</p> <p>5 there is code on the mobile device to</p> <p>6 support that protocol.</p> <p>7 Q. Okay. Okay. And then just</p> <p>8 again kind of walking through the claim,</p> <p>9 we also have a server that is in</p> <p>10 communication with the at least one mobile</p> <p>11 device, and if you look at column 31</p> <p>12 around line 47, eight, it says via the</p> <p>13 internet?</p> <p>14 A. Yes, I see that.</p> <p>15 Q. And if -- if the server's in</p> <p>16 communication with the mobile device via</p> <p>17 the internet, would you understand that to</p> <p>18 mean, like, via the internet protocol?</p> <p>19 A. Well, it seems to be physically</p> <p>20 the internet, but that would require the</p> <p>21 use of the internet protocol.</p> <p>22 Q. Okay. And I guess if you look</p> <p>23 at lines 50, 51, I think it clarifies that</p> <p>24 received from at least one mobile device</p> <p>25 and internet protocol over the internet at</p>	<p style="text-align: right;">Page 105</p> <p>1 discussed with respect to the 899 patent</p> <p>2 disputed claim six, is that fair?</p> <p>3 A. That's fair. You're talking</p> <p>4 about the communication protocols, the</p> <p>5 broadcast communication units, things like</p> <p>6 that.</p> <p>7 Q. Yes, mobile device, display,</p> <p>8 server.</p> <p>9 A. Those aspects are similar with</p> <p>10 the 899.</p> <p>11 Q. And then in the messages that</p> <p>12 are being transferred pursuant to</p> <p>13 particular protocols which would have</p> <p>14 particular formats as a result?</p> <p>15 A. Correct.</p> <p>16 Q. Okay, so I think that covers</p> <p>17 claim one. The next one is claim 15, and</p> <p>18 again, I think unlike the 899 patent where</p> <p>19 there was a difference between application</p> <p>20 and computer code, I believe that the</p> <p>21 other claims, 15 and 28 are -- do not have</p> <p>22 those differences. So claim 15's at the</p> <p>23 bottom of column 39 of the 292 patent,</p> <p>24 which is Exhibit 2.</p> <p>25 A. Yes, I see it.</p>

<p style="text-align: right;">Page 106</p> <p>1 Q. And here again, broadcast short- 2 range communications unit, broadcast 3 messages sent via or broadcast via first 4 wireless communications protocol with 5 mobile devices. 6 We have second broadcast 7 short-range communications unit that also 8 sends or broadcasts via the first wireless 9 communications protocol, and we have again 10 the code configured to be executed, code 11 when you get to actual disputed claim term 12 seven, it's in column 40, around line 29, 13 the code when executed configured to cause 14 display via a display of the at least one 15 mobile device. So those are other 16 structural components that we discussed, 17 correct? 18 A. So I would say my answer for 19 these particular elements for claim 15 20 would be the same as for claim one, and 21 the same as I said about the claim one is 22 899. 23 Q. Yes, so provides certain 24 structural aspects of the claim, is 25 that --</p>	<p style="text-align: right;">Page 108</p> <p>1 Q. If you want to just review it 2 quickly and confirm whether or not it has 3 the same structural components that we 4 discussed with respect to claims one and 5 15, that's fine, or I can walk through it 6 again, whichever is easier for you. 7 A. Just give me a minute -- 8 Q. Sure. 9 A. -- to read this. 10 Q. Sure, take your time. 11 A. Mr. Dahlgren, I'll say that my 12 opinions about the following claim terms 13 for claim 28 are the same as those I've 14 expressed for claims one and 15 of the 292 15 patent as well as, for example, claim one 16 of the 899 patent. 17 Q. Okay. 18 A. Broadcast short-range 19 communications unit, first wireless 20 communications protocol, second broadcast 21 short-range communications unit, display 22 of the at least one mobile device, 23 internet protocol, second wireless 24 communications protocol and the server, 25 period.</p>
<p style="text-align: right;">Page 107</p> <p>1 A. Yes. 2 Q. -- a fair characterization? 3 A. Generally speaking, certain 4 aspects of format and the mechanism for 5 communicating information without 6 informing the actual content of the 7 information. 8 Q. Yes, I understand. There's also 9 reference to the server, internet protocol 10 and, you know, messages according to 11 different protocols, so we can kind of 12 keep reviewing it in more detail, but if 13 you'll agree that claim 15 is essentially 14 the same as claim one in terms of the 15 specific structural components that we've 16 discussed, we can jump to claim 28 and try 17 to move this along. 18 A. So as I said, for claim 15, the 19 same elements that connote some structure 20 that we discussed for claim one apply to 21 claim 15. 22 Q. Okay. Now turn to claim 28, it 23 begins on column 43 of the 292 patent, 24 Exhibit 2. 25 A. I see it.</p>	<p style="text-align: right;">Page 109</p> <p>1 Q. And the messages according to 2 the protocols, correct? 3 A. Yes, the messages, the format 4 would be defined by the protocol. 5 MR. DAHLGREN: I think we can 6 take a break for lunch quick. Thank 7 you for just letting me power through 8 that. 9 THE WITNESS: Sure. 10 [A recess was taken.] 11 Q. Dr. Goldberg, I would like you 12 to, if you have, I think it was Exhibit 5, 13 was the numbered disputed claim terms, 14 Goldberg Exhibit 5. 15 A. Yes. 16 Q. I'd like to discuss eight and 17 nine. So starting with eight, 18 application, so it's the same, beginning 19 with an application, but it refers to, and 20 if you take Exhibit 1, the 899 patent, 21 column 29, and you look down, it's the 22 application configured language around 23 lines 48 and 49, and then it is also an 24 indication of a receipt which is 58 25 through, like, 64, and you can just take a</p>

<p style="text-align: right;">Page 110</p> <p>1 look at that.</p> <p>2 A. So it's column 29 starting at</p> <p>3 what line?</p> <p>4 Q. The limitation is -- starts at</p> <p>5 48, an application configured for</p> <p>6 execution by at least one of the plurality</p> <p>7 of mobile devices, and then it's ellipsed,</p> <p>8 and it drops down to the application when</p> <p>9 executed causes at least one mobile device</p> <p>10 to, and then it goes down to what I said</p> <p>11 was line 58, receive indication of a</p> <p>12 receipt along with the rest of the</p> <p>13 language that's in that claim limitation.</p> <p>14 A. Yes, okay.</p> <p>15 Q. And so this is going to be very</p> <p>16 similar to what, you know, we did before,</p> <p>17 but just again talking about what in the</p> <p>18 claim provides some aspects of structure,</p> <p>19 and I think it will be largely duplicative</p> <p>20 of what we did when we talked about</p> <p>21 disputed claims of six and seven as we go</p> <p>22 through this, and so hopefully we can</p> <p>23 marshal on fairly quickly.</p> <p>24 But again, just, you know,</p> <p>25 looking at claim one, we have the same</p>	<p style="text-align: right;">Page 112</p> <p>1 because some of those inform the</p> <p>2 application, some inform the mobile</p> <p>3 device, even the display, and so those</p> <p>4 would still have some bearing on how a</p> <p>5 person skilled in the art looking at the</p> <p>6 claim as a whole would view the particular</p> <p>7 claim limitations.</p> <p>8 So for example, if we're talking</p> <p>9 about the application, an application</p> <p>10 configured for execution by at least one</p> <p>11 of the plurality of mobile devices, so</p> <p>12 that's around line 48 of column 29.</p> <p>13 A. I see that.</p> <p>14 Q. And then, you know, we jumped</p> <p>15 over to column 30, around line 35 where it</p> <p>16 referred to application again and provides</p> <p>17 some additional information, and then</p> <p>18 there was the interaction between the</p> <p>19 server sending messages to the mobile</p> <p>20 devices that we discussed, that's</p> <p>21 reflected earlier in column 30.</p> <p>22 And so the point being that all</p> <p>23 these different structural aspects of the</p> <p>24 claim that we discussed, that they would</p> <p>25 still inform how a person would interpret</p>
<p style="text-align: right;">Page 111</p> <p>1 kind of structural aspects reflected by</p> <p>2 the short-range communications unit, the</p> <p>3 communications protocol, the mobile device</p> <p>4 display, the Bluetooth wireless</p> <p>5 communications protocol, which is</p> <p>6 specifically called out in claim one, the</p> <p>7 server, internet protocol and it says</p> <p>8 another wireless communications protocol.</p> <p>9 So point being we have the same</p> <p>10 kind of structural elements that are</p> <p>11 present in the claim that we discussed</p> <p>12 earlier --</p> <p>13 A. Right.</p> <p>14 Q. -- is that fair to say?</p> <p>15 A. Yeah, so my opinion that I</p> <p>16 expressed earlier with regard to 899 claim</p> <p>17 one still stands, but now we're looking at</p> <p>18 a different claim element that you</p> <p>19 directed me to, right?</p> <p>20 Q. Yes.</p> <p>21 A. Starting at line --</p> <p>22 Q. We are --</p> <p>23 A. -- 58.</p> <p>24 Q. -- and the reason we discussed</p> <p>25 before the other aspects of the claim is</p>	<p style="text-align: right;">Page 113</p> <p>1 an application -- or excuse me, disputed</p> <p>2 claim eight, that's the point that I was</p> <p>3 trying to make, is that the point that you</p> <p>4 would agree or would disagree?</p> <p>5 MR. TYSON: I object to the</p> <p>6 form.</p> <p>7 A. To the extent that disputed</p> <p>8 claim eight recites the elements that we</p> <p>9 already discussed, then my opinion on</p> <p>10 those elements apply to disputed claim</p> <p>11 eight.</p> <p>12 Q. Okay.</p> <p>13 A. But it's just those elements.</p> <p>14 Q. Okay, understand. And, you</p> <p>15 know, disputed claim eight, it does refer</p> <p>16 to the application configured, and then</p> <p>17 goes on to recite the received indication</p> <p>18 of receipt, that limitation in lines 58</p> <p>19 through 60 -- is it 64 --</p> <p>20 A. I see that.</p> <p>21 Q. -- in column 29, so the point</p> <p>22 being is that elsewhere where it talks</p> <p>23 about the application or it talks about</p> <p>24 short-range communication unit or</p> <p>25 different communication protocols and</p>

<p style="text-align: right;">Page 114</p> <p>1 messages, that those can also inform how a 2 person skilled in the art will understand 3 the application that's recited at line, 4 like, 48 of column 29, do you follow me? 5 A. Yes, so as I discussed, it might 6 inform about certain aspects of the 7 limitation. 8 Q. Yes, okay, and I think that's -- 9 and that's fair. And the point I wanted 10 to make here is again we're dealing with 11 the same other structural components that 12 we discussed previously, and that those 13 are still present, and you would agree 14 they may have some bearing on disputed 15 claim eight, is that fair? 16 MR. TYSON: I object to the 17 form. 18 A. Yes, some bearing. 19 Q. Looking at this now, do you see 20 anything that would connote any other 21 structural limitation to the claim that I 22 might have missed? And you can take a 23 minute to review the claim, and we'll 24 probably go on to the next one. 25 A. Not that I can think of.</p>	<p style="text-align: right;">Page 116</p> <p>1 eight might be understood by a person 2 skilled in the art? 3 MR. TYSON: I object to the 4 form. 5 A. Yes, to the extent that those 6 elements such as the Bluetooth or wireless 7 communications protocol, et cetera, that 8 we've already discussed appear in disputed 9 claim eight, those terms would have some 10 bearing on disputed claim eight. 11 Q. And going back to, actually, 12 claim one in the Bluetooth wireless 13 communications protocol, are you aware 14 whether the Bluetooth wireless 15 communications protocol would involve 16 sending some indication that a message had 17 been sent to a mobile device -- 18 MR. TYSON: I object to the 19 form. 20 Q. -- as part of the protocol? 21 A. Sitting here, I don't recall, 22 I'd have to look at the standard. 23 Q. Okay. And are you aware of any 24 wireless communication protocols that 25 would have a -- strike that.</p>
<p style="text-align: right;">Page 115</p> <p>1 Q. Okay. So just to kind of 2 summarize it, you agree with respect to 3 our earlier discussion with the other 4 disputed claim terms like six and seven, 5 that with respect to claim one of the 899 6 patent, those same structural features are 7 present and may have bearing with respect 8 to disputed claim eight? 9 MR. TYSON: I object to the 10 form. 11 A. Yes, they inform some aspect of 12 claim eight. 13 Q. Okay. 14 A. I'm sorry, of claim term eight. 15 Q. Claim term eight, yes, correct, 16 okay. So I'm going to kind of do the same 17 thing with claim seven of the 899 patent, 18 it's Exhibit 1, claim seven is on column 19 31, begins around line 44. 20 A. I see it. 21 Q. And you would agree that the 22 same structural components that we 23 identified in our earlier discussion of 24 claim seven are still present and have 25 some bearing on how disputed claim term</p>	<p style="text-align: right;">Page 117</p> <p>1 Are you aware of any wireless 2 communication protocols that would, in 3 connection with sending a message to a 4 mobile device, also include an indication 5 that the message was sent? 6 MR. TYSON: I object to the 7 form. 8 A. Sitting here, I don't recall, I 9 would have to look at the standards. 10 Q. Okay. Okay. And you didn't 11 review the various wireless communication 12 protocols, Bluetooth protocols in 13 preparing your declaration, is that fair? 14 A. Yes, that's fair. 15 Q. Again, with claim seven, you 16 would agree, the same structural 17 components that we discussed earlier are 18 present, and I apologize if I asked this 19 question already, and that they would have 20 bearing again on how disputed claim eight 21 would be understood by a person skilled in 22 the art? 23 MR. TYSON: I object to the 24 form. 25 A. Yeah, you did ask before, and</p>

<p style="text-align: right;">Page 118</p> <p>1 I'll just repeat my answer, and that is to  2 the extent that those terms that we  3 discussed, communications protocol,  4 broadcast communication unit, appear in  5 disputed claim eight then they have  6 bearing on how one would understand claim  7 eight.  8 Q. So that raises --  9 A. I apologize again, I meant claim  10 term eight.  11 Q. Yes. And you understand that  12 claim term -- disputed claim term eight  13 which is in claim seven, computer code  14 configured for execution, was going to  15 ellipse it to receive an indication of  16 received, you understand that that's  17 disputed claim term eight for claim seven,  18 right?  19 A. That's what it appears to be,  20 right.  21 Q. And so you would agree that  22 other references to the computer code  23 would inform the meaning of that term,  24 correct?  25 MR. TYSON: I object to the</p>	<p style="text-align: right;">Page 120</p> <p>1 would inform the meaning of what the  2 computer code configured for execution in  3 disputed claim eight means, is that fair?  4 A. Fair, yes.  5 Q. And so now again, the same, I  6 guess, questions with respect to claim  7 nine of the 899 patent, it's Exhibit 1,  8 it's on column 33.  9 A. Yes.  10 Q. You would agree that the same  11 structural elements that we discussed  12 previously are still present in claim  13 nine, is that fair?  14 A. Yes, the same ones that we  15 discussed.  16 Q. And that the structural  17 elements -- strike that.  18 And you would agree that the  19 structural elements that we discussed with  20 respect to claim nine would have some  21 bearing on how a person of ordinary skill  22 in the art would understand the disputed  23 claim term eight, is that fair?  24 MR. TYSON: I object to the  25 form.</p>
<p style="text-align: right;">Page 119</p> <p>1 form.  2 Q. Even if they were not present in  3 the language of disputed claim term eight?  4 MR. TYSON: Objection.  5 A. Well, I understand that each  6 claim limitation should be read in the  7 context of the entire claim, and so -- and  8 so yes, there will be other portions of  9 the claim that inform one's understanding  10 of certain claim limitation.  11 Q. And for example, one of those  12 portions looking at claim seven of the 899  13 patent, again disputed claim eight refers  14 to the computer code configured for  15 execution, but if you look at, for  16 example, it's around line 43 of column 32,  17 it refers to said computer code when  18 executed further configured to and then  19 forms some different things, is that  20 correct?  21 A. I see that, yes.  22 Q. And so you'd agree that to the  23 extent that it refers to various wireless  24 communication protocols, messages,  25 interactions with the server, that it</p>	<p style="text-align: right;">Page 121</p> <p>1 A. Yes. As I said, to the extent  2 that those terms appear in claim eight or  3 are used to inform about the claimed  4 computer code elsewhere in the claim.  5 Q. But even with respect to aspects  6 that inform mobile device or the broadcast  7 short-range communication unit and various  8 protocols, you would agree that those  9 would still have some bearing on how a  10 person skilled in the art would understand  11 disputed claim term eight?  12 A. Yes.  13 Q. Okay. And now claim 11 of the  14 899 patent, Exhibit 1. Again, you agree  15 that the same structural elements that we  16 discussed previously with respect to claim  17 11 of the 899 patent are present and that  18 they would have a bearing on disputed  19 claim term eight, is that fair?  20 A. Yes.  21 Q. So I believe we covered one,  22 seven, nine, 11. So now if you wouldn't  23 mind, if you'd look at Exhibit 2, the 292  24 patent, and I'll make sure I get these  25 terms right, but I believe it's claims</p>

<p style="text-align: right;">Page 122</p> <p>1 one, 15 and 28.</p> <p>2 And I'm sorry, just quickly, in</p> <p>3 claim nine of 899 patent, it refers to a</p> <p>4 short-range wireless communication</p> <p>5 protocol, do you have any understanding as</p> <p>6 to how the, I guess, the short-range</p> <p>7 modifier might change the protocol from</p> <p>8 other wireless communication protocols?</p> <p>9 A. Well, there are certain</p> <p>10 protocols that are normally considered to</p> <p>11 be short-range, in other words, covering a</p> <p>12 small, fairly small wireless distance, and</p> <p>13 Bluetooth would be one of those.</p> <p>14 Q. Okay. So would a person of</p> <p>15 skill in the art understand that a</p> <p>16 reference to a short-range wireless</p> <p>17 communication protocol could include</p> <p>18 Bluetooth?</p> <p>19 A. I think so.</p> <p>20 Q. Okay. So looking at Exhibit 2,</p> <p>21 the 292 patent, start at claim one. You</p> <p>22 would agree that, and again, this is</p> <p>23 similar to what I was asking before, I'm</p> <p>24 trying to just expedite this, that the</p> <p>25 same structural elements that we discussed</p>	<p style="text-align: right;">Page 124</p> <p>1 term eight as is recited in claim 15 of</p> <p>2 the 292 patent?</p> <p>3 A. I think my answer for claim 15</p> <p>4 would be the same as for claim one and the</p> <p>5 other claim. The other claims that we</p> <p>6 discussed of the 899 patent.</p> <p>7 Q. Okay.</p> <p>8 A. They would have some bearing on</p> <p>9 one's understanding of the disputed claim</p> <p>10 term eight.</p> <p>11 Q. The same question with respect</p> <p>12 to claim 28 of the 292 patent, and that</p> <p>13 begins on column 43, we're on Exhibit 2,</p> <p>14 and you would agree that the same</p> <p>15 structural elements that we discussed with</p> <p>16 respect to claim 28 of the 292 patent</p> <p>17 would have some bearing on how a person of</p> <p>18 ordinary skill in the art would understand</p> <p>19 disputed claim term eight -- strike that.</p> <p>20 You would agree that the</p> <p>21 structural elements we discussed</p> <p>22 previously with respect to claim 28 of the</p> <p>23 292 patent would have some bearing on how</p> <p>24 a person of ordinary skill in the art</p> <p>25 would understand disputed claim term</p>
<p style="text-align: right;">Page 123</p> <p>1 earlier with respect to claim one of the</p> <p>2 292 patent are still present and would</p> <p>3 have some bearing on the way a person of</p> <p>4 ordinary skill in the art would understand</p> <p>5 disputed claim term eight?</p> <p>6 And please take your time to</p> <p>7 review anything that you need to. And if</p> <p>8 it's easier, I can walk you through it.</p> <p>9 A. No, my testimony would be the</p> <p>10 same, those two claim terms that we</p> <p>11 discussed as having -- as connoting some</p> <p>12 structure would have a bearing on a person</p> <p>13 of skill's understanding of disputed claim</p> <p>14 term eight.</p> <p>15 Q. Okay.</p> <p>16 A. In claim one of the 292 patent.</p> <p>17 Q. Okay. And also -- and so the</p> <p>18 same question with respect to claim 15 of</p> <p>19 the 292 patent. With respect to the claim</p> <p>20 15, we discussed a number of different</p> <p>21 elements that would connote structure that</p> <p>22 are present in the claim, and you would</p> <p>23 agree that those structural elements would</p> <p>24 have some bearing on how a person skilled</p> <p>25 in the art would understand disputed claim</p>	<p style="text-align: right;">Page 125</p> <p>1 eight?</p> <p>2 A. Yes, the particular claim terms</p> <p>3 that we discussed as having some structure</p> <p>4 would have some bearing on claim term</p> <p>5 eight in the context of claim 28 of the</p> <p>6 292 patent.</p> <p>7 Q. And are you aware of any</p> <p>8 communication protocols that provide,</p> <p>9 along with a message that is being sent to</p> <p>10 a mobile device, some type of notification</p> <p>11 or indication that the message has been</p> <p>12 sent and received by that mobile device?</p> <p>13 MR. TYSON: I object to the</p> <p>14 form.</p> <p>15 A. So as I discussed previously,</p> <p>16 most communication protocols provide a</p> <p>17 mechanism for -- in which the recipient of</p> <p>18 a message sends an acknowledgment to the</p> <p>19 sender letting them know that a message</p> <p>20 was received. I don't think this applies</p> <p>21 here, but that's -- that's what I recall</p> <p>22 almost every communications protocol I can</p> <p>23 think of.</p> <p>24 Q. Okay. But can you say that</p> <p>25 those protocols that you can think of in</p>

<p style="text-align: right;">Page 126</p> <p>1 which you noted that there was the 2 confirmation of receipt, do you recall 3 whether there was any type of indication 4 of receipt that was provided along with 5 the message? 6 MR. TYSON: I object to the 7 form. 8 A. Provided to the recipient? 9 Q. Correct. 10 A. I don't recall, I'd have to look 11 at the standards. 12 Q. So it's possible that both would 13 be done in a particular protocol 14 whereas -- that is there would be a 15 confirmation, but also indication that a 16 message had been sent along with a message 17 to the recipient, that an indication or a 18 notification that a message was sent was 19 sent along with the message itself to the 20 recipient? 21 MR. TYSON: I object to the 22 form. 23 A. I'd have to look in the 24 standards. There's no disclosure that I 25 found in the patents or the applications,</p>	<p style="text-align: right;">Page 128</p> <p>1 that it is similar to disputed claim term 2 eight, except that it's referring to 3 indication received from a second 4 broadcast short-range communications unit, 5 I just wanted to point that out if that -- 6 if that helps you. 7 But with respect to claims one, 8 15 and 28, the structural elements that 9 we've discussed today that are present in 10 these claims, you would agree that they 11 would have some bearing on how a person of 12 skill in the art would understand disputed 13 claim term nine, is that fair? 14 A. Disputed claim term nine refers 15 to mobile devices, refers to broadcast 16 short-range communications unit and first 17 wireless protocol, and those we've 18 discussed one of skill would understand 19 some structure of, so at least those would 20 have some bearing on one's understanding 21 of disputed claim term nine. 22 Q. And again, as we discussed 23 before, because the claims also recite 24 interactions between the server and the 25 mobile devices that have the code</p>
<p style="text-align: right;">Page 127</p> <p>1 so I'd have to go look at the standards. 2 Q. But if the standards had that 3 functionality and the person with skill in 4 the art was knowledgeable about the 5 standards was able to understand that that 6 functionality flows from the use of the 7 standard, is that fair? 8 MR. TYSON: I object to the 9 form. 10 A. I think it's fair to say that if 11 the standard says that an indication of a 12 receipt is sent along with the data, 13 then -- then one of skill familiar with 14 that standard would know what that -- what 15 that is. 16 Q. Okay. And at this time, you're 17 just not familiar with the standard to 18 know if that's the case? 19 A. Right, I would have to review 20 the standards to refresh my recollection. 21 Q. Okay. Now I'd like to discuss 22 disputed claim term nine, and that also 23 involves claims one, 15 and 28 of the 292 24 patent which is marked as Exhibit 2. And 25 you'll note that -- if you look at it,</p>	<p style="text-align: right;">Page 129</p> <p>1 configured to be executed upon them and 2 the various protocols that are used for 3 communication with the mobile devices, 4 that the other structural elements that we 5 discussed, while maybe not recited 6 expressly in disputed claim term nine, 7 would nonetheless have some bearing on how 8 a person skilled in the art would 9 understand disputed claim term nine? 10 A. I mean -- 11 MR. TYSON: I object to the 12 form. 13 A. I agree with that. 14 Q. Again, I was asking these 15 questions with respect to one, 15 and 28 16 kind of collectively in order to try to 17 expedite things. 18 A. Yeah. 19 Q. Would you agree that the same 20 applies to the three claims? 21 A. I do. 22 Q. So now I'd like to discuss 23 disputed claim terms it's going to be ten 24 and 11. We'll start with ten. Ten is 25 just claim one of the 899 patent, it's</p>

<p style="text-align: right;">Page 130</p> <p>1 Exhibit 1. And if you look at, it's 2 column 29, it refers to said application 3 when executed, and that language can be 4 found in column 30 around line 35, and 5 then it's ellipsed, and it then refers to 6 what starts at, it looks like, line 41 of 7 column 30 in response to the receipt, do 8 you see that? 9 A. I do. 10 Q. And again, you'd agree that the 11 same structural components that we've 12 discussed earlier with respect to claim 13 one would have some bearing on how a 14 person of ordinary skill in the art would 15 understand disputed claim term ten, is 16 that fair? 17 A. Yes, my prior testimony about 18 the -- the elements that we've been 19 discussing would have some bearing on the 20 understanding of disputed claim term ten. 21 Q. So now disputed claim term 11 22 covers claims seven, nine and 11 of the 23 899 patent and also claim one of the 292 24 patent, so if we stick with the 899 25 patent, Exhibit 1, and looking at claim</p>	<p style="text-align: right;">Page 132</p> <p>1 54, 55, causing to be output visual 2 information, it's via the at least one 3 mobile device. 4 Do you understand causing visual 5 information to be output via mobile device 6 to be similar to causing to display via 7 mobile device visual information? 8 A. Well, I'm having trouble with 9 your question because when we're talking 10 about, for example, claim one of the 899, 11 it's causing to display via the display of 12 the mobile device, right? So that's not 13 exactly what you said. 14 Q. Correct. The language is 15 slightly different in claim seven, and I 16 guess the point I was getting at is that 17 do you read those as being essentially the 18 same but just not using the same language? 19 MR. TYSON: I object to the 20 form. 21 Q. Excuse me, having the same -- 22 essentially the same meaning even though 23 they use different terms to describe it. 24 A. And which two terms are you 25 talking about?</p>
<p style="text-align: right;">Page 131</p> <p>1 seven, so what we have in claim seven, 2 it's around lines 43, column 32, and it's 3 said computer when executed further 4 configured to, and again, similar to claim 5 one it's ellipsed and it goes down to in 6 response -- yeah, response to the receipt, 7 so that's beginning around line 47 of 8 column 32, do you see that? 9 A. I do. 10 Q. So that disputed claim term 11 11 in claim seven of 899 patent, you would 12 agree that the structural elements that 13 we've discussed previously that are 14 present in claim seven would have some 15 bearing on how an ordinary person skilled 16 in the art would understand disputed claim 17 term 11, correct? 18 A. Yes, some bearing, yes. 19 Q. Some of the claims refer to 20 mobile action including causing to be 21 output via the at least one mobile device, 22 the visual information, that's -- I could 23 point you to column 32, again we're still 24 in claim seven, the 899 patent, and I 25 guess particularly it's line, like, 55, or</p>	<p style="text-align: right;">Page 133</p> <p>1 Q. I'm causing -- excuse me, I'm 2 referring to causing to be output via the 3 at least one mobile device the visual 4 information. 5 A. Okay. And what's the other one? 6 Q. The other one -- well, actually 7 in respect to disputed claim ten, claim 8 one does use that same language, but the 9 question would be -- 10 A. So -- 11 Q. -- that I would pose to you is 12 whether causing to output via a mobile 13 device visual information means that the 14 mobile device is displaying visual 15 information? 16 A. I don't -- I don't think it's 17 necessarily so, and this is part of my 18 opinion about that one of skill 19 couldn't -- wouldn't understand what the 20 scope of that term is. 21 So if you look at column 32, 22 lines four and five, cause display of an 23 option via a display of the at least one 24 mobile device, so here they use the words 25 cause display via a display, and yet at</p>

<p style="text-align: right;">Page 134</p> <p>1 line -- line 54 of the same column,  2 causing to be output via at least one  3 mobile device, and so to me, there's a --  4 the language is different as it is here,  5 then one can't assume that they mean the  6 same thing.  7 And so I understand cause  8 display via a display is to display  9 whatever on the mobile device's screen or  10 their display, whereas cause output via  11 the device of visual information seems to  12 be broader.  13 That apparently, this is  14 claiming that the computer code can  15 cause -- as long as the visual information  16 is output somewhere on the -- and somehow  17 the mobile device is used, then that might  18 satisfy this claim element, so it's tough  19 to tell what exactly is meant here because  20 there's no corresponding disclosure in  21 the -- in the provisional or the  22 applications or the patent specifications.  23 Q. So if I understand correctly,  24 you're saying causing to be output via  25 mobile device some visual information that</p>	<p style="text-align: right;">Page 136</p> <p>1 seven and nine refer to computer code,  2 claim 11 refers to application, I believe?  3 A. Yes, that's correct.  4 Q. So aside from those differences,  5 you would agree that the structural  6 elements that we have discussed with  7 respect to claims seven, nine and 11 of  8 the 899 patent would inform a person of  9 ordinary skill in the art's understanding  10 of disputed claim term 11? And if you  11 need me to point to where those are  12 present in any of the other claims, please  13 let me know.  14 A. No, I think my testimony about  15 claim seven, about what -- what one of  16 skill would and would not understand with  17 regard to disputed claim term 11 applies  18 to claim nine of the 889 patent as well.  19 Q. Okay. And also claim 11?  20 A. Yes, my opinions I've just  21 expressed about claims seven and nine with  22 respect to claim term 11 also apply to  23 claim 11 of the 899 patent.  24 Q. So for 11, disputed claim term  25 11, it's also present in claim one of the</p>
<p style="text-align: right;">Page 135</p> <p>1 is essentially broader than displaying  2 some visual information on the mobile  3 device's display?  4 A. I think one of skill reading  5 that would realize that this may be --  6 this may be broader, that as long as  7 you're causing the information to be  8 output and you're using the mobile device  9 to do so in some way, then maybe that  10 reads on this claim. It's hard to know.  11 Q. Okay. So going back, we were  12 starting on, excuse me if I'm wrong, we  13 did disputed claim term ten, correct, and  14 we did 11?  15 A. Yes.  16 Q. We did the 899 patent claim  17 seven, nine and 11 for disputed claim  18 terms 11, is that right?  19 A. I believe so.  20 Q. You would agree that -- I mean,  21 as we -- actually, take that back.  22 Yes, I think we did ten and we  23 started on 11 with claim seven, disputed  24 claim term 11 is present in claims seven,  25 nine and 11 of the 899 patent. Claim</p>	<p style="text-align: right;">Page 137</p> <p>1 292 patent, and claim one again of 292  2 patent begins on column 30 of Plaintiff's  3 Exhibit 2.  4 The language of disputed claim  5 term 11, I believe, is on column 32 with  6 the exception of, I think, the said code  7 when executed further configured to, not  8 preamble, but the, kind of, opening, and  9 then it's ellipsed to line four of column  10 32, do you see that?  11 A. I do.  12 Q. Okay. And so again, the  13 structural elements that we've identified  14 in claim one of the 292 patent, you would  15 agree that those structural components  16 would inform a person of ordinary skill in  17 the art's understanding of disputed claim  18 term 11, is that fair?  19 A. Yes, that's fair. And let me  20 just repeat my -- the caveat, that the  21 cause to be output limitation, because it  22 doesn't say on which display or how the  23 visual information is output, I don't  24 think is informed by the structural  25 element discussed which is the display of</p>

<p style="text-align: right;">Page 138</p> <p>1 a mobile device.</p> <p>2 Q. Okay. So in that case for that</p> <p>3 particular part of disputed claim term 11,</p> <p>4 it's your position that the display of the</p> <p>5 mobile device may not have bearing on the</p> <p>6 output via the at least one mobile device,</p> <p>7 is that fair?</p> <p>8 A. Yes, in fact, one can't tell if</p> <p>9 it has bearing or not.</p> <p>10 Q. Okay. Now, you would agree,</p> <p>11 however, that the code that is referenced</p> <p>12 in claim one of the 292 patent that is</p> <p>13 further configured to achieve disputed</p> <p>14 claim term 11, that that code is the same</p> <p>15 code that is referred to on line seven of</p> <p>16 column 31 that also is configured to cause</p> <p>17 display via display of the at least one</p> <p>18 mobile device of an option for causing, et</p> <p>19 cetera, do you see that?</p> <p>20 MR. TYSON: I object to the</p> <p>21 form.</p> <p>22 A. I do, I see the line, the cause</p> <p>23 display via a display limitation starting</p> <p>24 at line ten.</p> <p>25 Q. And so the code that is being</p>	<p style="text-align: right;">Page 140</p> <p>1 option is the same code, in other words, a</p> <p>2 part of the same code base, as the code</p> <p>3 that is claimed to cause to be output via</p> <p>4 at least one mobile device, either the</p> <p>5 first or second visual information in</p> <p>6 column 32. It's the same set of code, but</p> <p>7 I think that's all you can say.</p> <p>8 Q. Yes, and my point is only that</p> <p>9 because that earlier discussion of display</p> <p>10 does have some bearing on scope of the</p> <p>11 code and the meaning of the code, that a</p> <p>12 person skilled in the art would understand</p> <p>13 that it would have some bearing on the</p> <p>14 interpretation of disputed claim term 11.</p> <p>15 MR. TYSON: I object to the</p> <p>16 form.</p> <p>17 Q. For example, they would</p> <p>18 understand that the code is configured to</p> <p>19 achieve both of the claim elements, is</p> <p>20 that fair?</p> <p>21 MR. TYSON: I object to the</p> <p>22 form.</p> <p>23 A. Yeah, I think what's fair to say</p> <p>24 is that the code, which has many features,</p> <p>25 as claimed, has the feature of being able</p>
<p style="text-align: right;">Page 139</p> <p>1 referred to as being configured to cause a</p> <p>2 display, that's the same code that is</p> <p>3 further configured to achieve disputed</p> <p>4 claim term 11, correct?</p> <p>5 MR. TYSON: I object to the</p> <p>6 form.</p> <p>7 A. I agree that the said code at</p> <p>8 line 64, which is further configured to</p> <p>9 contain certain features recited in the</p> <p>10 subsequent limitations, is the same code</p> <p>11 as found on line eight of column 31.</p> <p>12 Q. And so with that understanding,</p> <p>13 you would agree that the reference to</p> <p>14 configured to cause display via display of</p> <p>15 at least one mobile device, that would</p> <p>16 still inform a person of ordinary skill in</p> <p>17 the art regarding how the code should be</p> <p>18 interpreted, and that is the same code</p> <p>19 that is involved in disputed claim term</p> <p>20 11, right?</p> <p>21 MR. TYSON: I object to the</p> <p>22 form.</p> <p>23 A. What I would say, the same code</p> <p>24 as identified as causing to the display</p> <p>25 via a display of the mobile device an</p>	<p style="text-align: right;">Page 141</p> <p>1 to cause display on the mobile device's</p> <p>2 display as an option, and has a separate</p> <p>3 feature that -- causing the output of</p> <p>4 visual information by the mobile device,</p> <p>5 so it's informing one of skill that this</p> <p>6 code contains a bunch of different things,</p> <p>7 two of which are -- including displaying</p> <p>8 an option on the mobile device's display</p> <p>9 and outputting information via the mobile</p> <p>10 device. I think that's all you can say</p> <p>11 that one of skill would understand from</p> <p>12 reading this claim in disputed claim term</p> <p>13 11.</p> <p>14 Q. Okay. So for disputed claim</p> <p>15 term 12, it is found in claims 15 and 28</p> <p>16 of the 292 patent, and claim 15 begins at</p> <p>17 the bottom of column 39 of 292 patent</p> <p>18 that's Exhibit 2.</p> <p>19 A. I see it.</p> <p>20 Q. And disputed claim term 12 is</p> <p>21 actually on column 41, and I believe it is</p> <p>22 around lines 40 -- it begins around line</p> <p>23 46.</p> <p>24 And similar with what we</p> <p>25 discussed with respect to claim one and</p>

<p style="text-align: right;">Page 142</p> <p>1 disputed claim term 11, you would agree  2 that the structural elements that we've  3 identified previously in claims 15 and 28  4 of the 292 patent would have some bearing  5 of how a person of ordinary skill in the  6 art would have understood disputed claim  7 term 12, is that fair?  8 A. I think that's fair, except with  9 the same caveat, that one of skill would  10 not understand what causing that be output  11 by a mobile device means in the same way  12 that the same issue arose for claim term  13 11.  14 Q. Okay. And as we discussed with  15 claim one in 292 patent and claim 11,  16 while some of the structural elements may  17 have bearing on how certain parts of the  18 code would have been understood, it's your  19 opinion that at least the display or the  20 mobile device may not be directly relevant  21 to the output limitation, did I capture  22 that right?  23 A. Yes, different language is used  24 within the same claim, and so there's no  25 reason to think that it means exactly the</p>	<p style="text-align: right;">Page 144</p> <p>1 mean that the claim term's not subject to  2 means plus function, correct?  3 MR. TYSON: I object to the  4 form. It calls for a legal  5 conclusion.  6 A. My understanding of means plus  7 function claims is stated in paragraph 23  8 on page six of my declaration and where I  9 state, for example, the presumption that a  10 claim is not means plus function can be  11 rebutted by showing that the claim element  12 recites a function without reciting  13 sufficient structure for performing that  14 function.  15 Q. I'd like you to -- you wouldn't  16 mind pointing me to that paragraph.  17 A. Sure, page six, paragraph 23 of  18 my declaration. What I read was the last  19 sentence of that.  20 Q. And so the corollary -- strike  21 that.  22 So looking at that statement but  23 from the other direction, you would agree  24 that for a claim term to not fall under  25 the -- strike that. I'm trying to figure</p>
<p style="text-align: right;">Page 143</p> <p>1 same thing.  2 Q. Are you aware that the same  3 meaning for a particular claim element can  4 be achieved using different language,  5 though, correct?  6 MR. TYSON: I object to the  7 form.  8 A. That's correct, and I would look  9 at the patent specification for clarity.  10 Q. Okay.  11 A. And I did that and found none  12 here.  13 Q. And you understand that where  14 there is not sufficient structure to  15 achieve a claim function recited in a  16 claim, that that may implicate means plus  17 function?  18 MR. TYSON: I object to the  19 form.  20 A. I'm not a lawyer, but generally  21 that's consistent with my understanding as  22 a layperson.  23 Q. Okay. And you also understand  24 that where there is sufficient structure  25 that is present in a claim, that would</p>	<p style="text-align: right;">Page 145</p> <p>1 out how to say this the right way.  2 So you would agree that for a  3 term to not be -- sorry, strike that  4 again.  5 So a patent -- you would agree  6 that a patent need only disclose  7 sufficient structure for a person  8 ordinarily skilled in the art to provide a  9 software program for the specified  10 function for a term to not fall under  11 means plus function?  12 MR. TYSON: I object to the form  13 and it calls for a legal conclusion.  14 A. Only -- if you could just -- I  15 need to hear the question again.  16 Q. Yes, I'll try to ask it again.  17 So in paragraph 23 of your  18 declaration, you state your understanding  19 about how the presumption against means  20 plus function can be rebutted where the  21 claim element recites the function but  22 does not recite sufficient structure for  23 performing that function, is that fair?  24 A. Yes.  25 Q. And you would agree that where a</p>

<p style="text-align: right;">Page 146</p> <p>1 claim element discloses sufficient 2 structure for a person of ordinary skill 3 in the art to provide an operative 4 software program for the specified 5 function that it would not fall under the 6 means plus function exception, is that 7 fair? 8 MR. TYSON: I object to the 9 form. 10 A. Well, I'm not a lawyer. My 11 understanding that -- is that the claim 12 element would need to recite the structure 13 required to perform that function, and 14 that the test is not that -- that -- 15 whether one's knowledge, one of skill's 16 knowledge would be enough to go off and 17 figure out how to perform that function, 18 but my understanding is the claim element 19 would have to disclose how to perform that 20 function to one of skill in the art -- 21 Q. Okay. 22 A. -- rather than relying on one of 23 skill in the art figuring it out based on 24 their knowledge. 25 Q. And I was characterizing that</p>	<p style="text-align: right;">Page 148</p> <p>1 disputed claim term 12. 2 So we had discussed, I think, 3 claim 15, disputed claim term 12 is also 4 present in claim 28, and if you want to 5 take a minute to look at that claim, 6 that's fine. It's -- the language of 7 disputed claim term 12 is found on the 8 bottom of column 44. 9 A. What line number? 10 Q. Starting at 56 and then again 11 it's ellipsed to after the receipt. 12 A. At 65? 13 Q. What is it? I apologize, I had 14 jumped to 13, but 12, 28 -- I'm sorry, I'm 15 trying to find -- 16 A. I'm assuming it's starting at 17 column 44 line 65. 18 Q. Maybe I'm reading this too long, 19 but it looks like said code when executed 20 configured to and then it's ellipsed, in 21 response to receipt, and here it says -- 22 it may be that there's just a typo in that 23 the slight difference in 15 and 28 wasn't 24 captured in brackets, because the rest of 25 the -- the rest of the language looks</p>
<p style="text-align: right;">Page 147</p> <p>1 wrong. If there was sufficient structure 2 such that a person of ordinary skill in 3 the art could identify an operative 4 software program, for example, and off- 5 the-shelf software interface, then the 6 claim would not be means plus function, 7 correct, you would have sufficient 8 structure? 9 MR. TYSON: I object to the 10 form. 11 A. So based on my understanding as 12 provided to me by Counsel in this matter, 13 it's not enough for me to be able to 14 identify an off-the-shelf software for 15 performing that function, but rather the 16 claim itself has to recite how -- how one 17 goes about performing the function, 18 whether software or not. 19 Q. Okay, and I'm not here to argue 20 the law with you, so I think that we 21 can -- we can move along and get back to 22 more of the substance of the declaration. 23 So before I distracted myself 24 with our legal discussion, I believe that 25 we had addressed -- get through all of</p>	<p style="text-align: right;">Page 149</p> <p>1 correct, so I think you're right. 2 So going with -- so going with 3 that, again, as we discussed, claim 28, 4 like claim 15 of the 292 patent we 5 identified various structural components 6 that are present in the claim, and you 7 would agree that those structural 8 components would have a bearing on how a 9 person of ordinary skill in the art would 10 understand disputed claim term 12, is that 11 fair? Again with the caveat about the 12 output versus display. 13 A. I think that's correct. Claim 14 term 12 refers to the second wireless 15 communications protocol, the internet 16 protocol, the internet, and so at least 17 some of the structural elements that we 18 discussed earlier would have some bearing 19 on one's understanding of disputed claim 20 term 12 in the context of claim 28 of the 21 292 patent. 22 Q. Yes. And again, the said code 23 is the same code that is referenced in the 24 bottom of column 43, and I think I made 25 the point earlier that that code is</p>

<p style="text-align: right;">Page 150</p> <p>1 configured to cause display, so even the 2 display has some bearing on how the code 3 as a whole might be understood? 4 MR. TYSON: I object to the 5 form. 6 A. I agree with that, even though 7 it may not bear on the output limitation 8 referenced in disputed claim term 12. 9 Q. Okay. Moving along, I would 10 like to move on to disputed claim term 13, 11 and this is found in claim one of the 292 12 patent, and if you want to look at 13 Goldberg Exhibit 5, and it's on page five 14 is where disputed claim term 13 is. 15 A. Sure. 16 Q. If you want to take a look at 17 that, and then I can direct you to where 18 it's present in the claim, in claim one. 19 A. Okay. Just bear with me one 20 minute. 21 Q. Sure, sure. 22 A. Okay, I'm ready for you to 23 direct me. 24 Q. Sure. So disputed claim term 25 13, it begins column 31, line 64, and</p>	<p style="text-align: right;">Page 152</p> <p>1 that you're drawing and I understand, and 2 again, you would still agree, though, that 3 the code being referred to in disputed 4 claim 13 is the same code that is referred 5 to on line seven of column 31 where the 6 code is configured to cause display via 7 display of the mobile device -- 8 MR. TYSON: I object to the 9 form. 10 Q. -- so that the structural 11 components would still have some bearing 12 on how code as a whole would be 13 understood, is that fair? 14 MR. TYSON: I object to the 15 form. 16 A. Yes, that's fair. As I 17 testified before, the code, which is a 18 bunch of software instructions, as claimed 19 here would have -- would be configurable 20 to cause display by the display of the 21 mobile device, in the case of an option, 22 and in addition to a number of other 23 features would be able to cause the output 24 via the -- via the mobile device of visual 25 information.</p>
<p style="text-align: right;">Page 151</p> <p>1 that's the said code when executed further 2 configured to, and then it's ellipsed, and 3 it picks up at, I think it's around line 4 11 of column 32 of the 292 patent, it's 5 Exhibit 2, where it says after the 6 receipt. 7 And again, we discussed in 8 connection with claim one a variety of 9 structural components, and you would agree 10 that a person of ordinary skill in the 11 art, or a POSITA, would understand that 12 those have some bearing on disputed claim 13 term 13 would have been understood? 14 A. Okay, so they would have some 15 bearing, at least a subset of them, 16 because the disputed claim term 13 recites 17 the second wireless communications 18 protocol, but again, this disputed claim 19 13 has the issue of the output via at 20 least one mobile device for which I don't 21 think there is a structure. 22 Q. So that's going back to the 23 display -- 24 A. Yes. 25 Q. -- versus output distinction</p>	<p style="text-align: right;">Page 153</p> <p>1 Q. Okay. And you had mentioned the 2 second wireless protocol, you would agree 3 that the code also is used on mobile 4 devices in connection with the first 5 wireless communications protocol, and 6 that's around line 20 of column 31, so 7 just like display, the various protocols 8 still have some bearing on the overall 9 scope of code, correct? 10 MR. TYSON: I object to the 11 form. 12 A. Yes. 13 Q. And we talked about response 14 message that's present in disputed claim 15 13, and as that is pursuant to a 16 particular wireless communications 17 protocol, the message would have some 18 particular format, correct? 19 A. As we've discussed, a message 20 sent via a particular wireless 21 communications protocol would have a 22 particular format dictated by that 23 protocol. 24 Q. And we discussed earlier that 25 the format of the message would connote</p>

<p style="text-align: right;">Page 154</p> <p>1 some degree of structure, fair?</p> <p>2 A. Some degree --</p> <p>3 MR. TYSON: Form.</p> <p>4 A. It would tell you where the</p> <p>5 different types of data would need to be</p> <p>6 put within the message, but it wouldn't</p> <p>7 tell you what the data itself is.</p> <p>8 Q. Understand. If you look at the</p> <p>9 claim, it does refer to certain types of</p> <p>10 information that are included in some of</p> <p>11 the messages, is that fair?</p> <p>12 A. Are you talking about claim one</p> <p>13 of the 292?</p> <p>14 Q. Yes. And just looking at the</p> <p>15 disputed claim term 13, it references</p> <p>16 response message including first location</p> <p>17 relevant information and the second</p> <p>18 location relevant information, and so</p> <p>19 there's at least some description of the</p> <p>20 content and the protocol would give you</p> <p>21 some information on the format, is that</p> <p>22 fair?</p> <p>23 A. I think it's fair. There's</p> <p>24 some -- some indication of the type of</p> <p>25 content, and then the format would be</p>	<p style="text-align: right;">Page 156</p> <p>1 person who is skilled in the art would</p> <p>2 have understood disputed claim term 14</p> <p>3 that's present in claim 15 of the 292</p> <p>4 patent?</p> <p>5 A. Yes, I would say some bearing,</p> <p>6 and with the same caveat about the output</p> <p>7 as we've discussed.</p> <p>8 Q. Now we're on 15, and this is</p> <p>9 claim 28 of the 292 patent, Exhibit 2.</p> <p>10 And that begins, it's at column 43, around</p> <p>11 line 30, and the actual disputed claim 15,</p> <p>12 there's the one line column 44 at line 56,</p> <p>13 a code when executed further configured to</p> <p>14 and it's ellipsed, and then it drops down</p> <p>15 to, make sure I get this right, I think it</p> <p>16 goes to column 45, line four.</p> <p>17 And again, the same questions as</p> <p>18 before with respect to these claims.</p> <p>19 We've identified a number of structural</p> <p>20 components that are present in claim 28 of</p> <p>21 the 292 patent, and you would agree that</p> <p>22 those structural components that we've</p> <p>23 identified that have some bearing on how a</p> <p>24 person of ordinary skill in the art would</p> <p>25 have understood disputed claim term 15,</p>
<p style="text-align: right;">Page 155</p> <p>1 dictated by the wireless communication</p> <p>2 protocol.</p> <p>3 Q. Okay. Fourteen is found --</p> <p>4 excuse me, disputed claim term 14 is found</p> <p>5 in claim 15 of the 292 patent, and you can</p> <p>6 feel free to disagree with me, but I would</p> <p>7 say that there's, you know, some</p> <p>8 similarities between 13, disputed claim 13</p> <p>9 and disputed claim 14, and I believe that</p> <p>10 the relevant disputed claim term language</p> <p>11 is found in column 41, line 47 is said</p> <p>12 code when executed configured to and then</p> <p>13 it jumps down to what I believe is line</p> <p>14 64.</p> <p>15 A. I see it.</p> <p>16 Q. And so again, it's the same</p> <p>17 questions I've been asking before. We've</p> <p>18 discussed a variety of structural</p> <p>19 components that are present in claim 15 of</p> <p>20 the 292 patent, the wireless communication</p> <p>21 protocols, server, the mobile devices, the</p> <p>22 message, the software that comes along</p> <p>23 with using the various protocols, and so</p> <p>24 you would agree that those structural</p> <p>25 elements would have some bearing on how a</p>	<p style="text-align: right;">Page 157</p> <p>1 correct?</p> <p>2 A. Since disputed claim term 15</p> <p>3 recites wireless communications protocol</p> <p>4 mobile device, then those terms would</p> <p>5 have -- would inform one of skill as to</p> <p>6 some aspects of the meaning of disputed</p> <p>7 claim term 15. We still have the caveat,</p> <p>8 of course, about the output --</p> <p>9 Q. Correct.</p> <p>10 A. -- appearing in that claim term.</p> <p>11 Q. And I understand your position</p> <p>12 on that, and again, you would agree that</p> <p>13 the code that's being referred to in</p> <p>14 disputed claim term 15 is also the code</p> <p>15 that is first recited at the bottom of</p> <p>16 column 43 at line 65?</p> <p>17 A. Yes.</p> <p>18 MR. TYSON: Objection to the</p> <p>19 form.</p> <p>20 Q. And so you would agree that,</p> <p>21 again, that these structural components,</p> <p>22 while some of them may not be recited</p> <p>23 expressly in disputed claim term 15, that</p> <p>24 nonetheless, they could have -- strike</p> <p>25 that.</p>

<p style="text-align: right;">Page 158</p> <p>1 You would agree that the</p> <p>2 structural components that we identified</p> <p>3 in claim 28 of the 292 patent, even though</p> <p>4 they're not necessarily expressly recited</p> <p>5 in disputed claim term 15, would have some</p> <p>6 bearing on how that disputed claim term</p> <p>7 would have been understood by a person of</p> <p>8 skill in the art?</p> <p>9 MR. TYSON: I object to the</p> <p>10 form.</p> <p>11 A. I agree it could have some, some</p> <p>12 bearing, yes.</p> <p>13 Q. Now we're moving into kind of a</p> <p>14 second category I want to call a second</p> <p>15 category of the claim, these are all where</p> <p>16 the system is configured claims, and this</p> <p>17 is 16 -- disputed claim term 16 through</p> <p>18 30. So I'd like to try to march through</p> <p>19 these, if we can.</p> <p>20 And so starting with 16 is</p> <p>21 claims one, seven and nine of the 899</p> <p>22 patent. So if you could turn to claim one</p> <p>23 of the 899 patent, I believe that you will</p> <p>24 find disputed claim term 16 to be in that</p> <p>25 last wherein claim limitation at the</p>	<p style="text-align: right;">Page 160</p> <p>1 A. Yes.</p> <p>2 Q. So the preamble of claim one is</p> <p>3 a system comprising, has a building, it</p> <p>4 has broadcast short-range communication</p> <p>5 unit, fixed location, it generates</p> <p>6 messages including the various things, has</p> <p>7 an application that's configured, you</p> <p>8 know, to do things, a server, application</p> <p>9 configured to do more stuff, so you</p> <p>10 understand the system encompasses all of</p> <p>11 those elements of the claim, correct?</p> <p>12 A. That's my reading of it.</p> <p>13 Q. And so you understand that the</p> <p>14 use of system is not adding any additional</p> <p>15 element to the claim, it's merely</p> <p>16 specifying that the system is configured</p> <p>17 to do these additional things, does that</p> <p>18 make sense?</p> <p>19 A. Could you read that back? I'm</p> <p>20 sorry.</p> <p>21 [The requested portion of the</p> <p>22 record was read.]</p> <p>23 A. It didn't quite make sense.</p> <p>24 Q. Are you familiar with wherein</p> <p>25 clauses?</p>
<p style="text-align: right;">Page 159</p> <p>1 bottom of column 30, I think it's Exhibit</p> <p>2 1 to the 899 patent.</p> <p>3 And you see that it's wherein</p> <p>4 the mobile device application visual</p> <p>5 information includes an image and the</p> <p>6 system is configured such that after the</p> <p>7 indication of the user input is received,</p> <p>8 and after an initial instance of the</p> <p>9 output of the mobile device application</p> <p>10 visual information including the image is</p> <p>11 caused, subsequent instances of the output</p> <p>12 of the mobile device application visual</p> <p>13 information including different images are</p> <p>14 capable of being caused as a user moves</p> <p>15 among a plurality of the facilities of the</p> <p>16 building without requiring additional</p> <p>17 subsequent user input.</p> <p>18 Do you see that?</p> <p>19 A. I do. Give me a moment, I'd</p> <p>20 like to reread it.</p> <p>21 Q. Please, please.</p> <p>22 A. Okay.</p> <p>23 Q. Now, if you look at the --</p> <p>24 you're familiar with the preamble of the</p> <p>25 claim, do you know what that means?</p>	<p style="text-align: right;">Page 161</p> <p>1 A. Sure.</p> <p>2 Q. And again, you're not here to</p> <p>3 speak to the law, but just what's your</p> <p>4 understanding of a wherein clause, as best</p> <p>5 you know?</p> <p>6 A. Providing additional description</p> <p>7 or limitation of something that's already</p> <p>8 been described.</p> <p>9 Q. Okay. And so if you look at the</p> <p>10 disputed claim term 16, it's part of a</p> <p>11 wherein clause, you see that, right?</p> <p>12 A. Yes.</p> <p>13 Q. And the system has already been</p> <p>14 described --</p> <p>15 A. Yes.</p> <p>16 Q. -- correct?</p> <p>17 And so it is merely specifying</p> <p>18 that the system is configured to do</p> <p>19 certain things, and it's not seeking to</p> <p>20 add an additional means outside of the</p> <p>21 elements that already reside in the</p> <p>22 system?</p> <p>23 A. I understand it's not adding an</p> <p>24 additional component to the system.</p> <p>25 Q. Correct. And you understand</p>

<p style="text-align: right;">Page 162</p> <p>1 that a means plus function is a drafting 2 tool where people running patent claims 3 can add an additional component but 4 describe it functionally, is that fair? 5 MR. TYSON: I object to the 6 form. It calls for a legal 7 conclusion. 8 A. As a layperson, to me, I guess 9 that sounds reasonable. 10 Q. Okay. And so here, we're not 11 adding an additional component with the 12 wherein clause when it refers to the 13 system, is that correct? 14 MR. TYSON: I object to the 15 form. It calls for speculation. 16 A. My understanding is that you are 17 describing some aspect of the system that 18 you've already introduced. 19 Q. Okay. Okay. And if you look at 20 some of the language about what the system 21 is configured to do, it appears that there 22 are components of the system that are 23 performing like functions already, is that 24 fair? 25 MR. TYSON: I object to the</p>	<p style="text-align: right;">Page 164</p> <p>1 input is received. 2 Q. Yes, and you see before column 3 29, it says received an indication, and 4 then later in column 30, it refers to the 5 indication? 6 A. Yes, I see that. 7 Q. And you're familiar with patent 8 drafting, that the first time something is 9 introduced, it's like an or a, and then 10 later it's the or said? 11 A. Yes. 12 Q. Okay. So going back to the 13 question I was asking before, if you look 14 at disputed claim term 16 and what the 15 system is configured to do, much of 16 those -- strike that. 17 Going back to my earlier 18 question, if you look at disputed claim 16 19 and what the system is configured to do in 20 that wherein clause, much of that is -- 21 appears to be done by kind of 22 subcomponents of the system, is that fair? 23 A. Generally speaking, I would say 24 yes, but it talks -- where the wherein 25 clause talks about the system being</p>
<p style="text-align: right;">Page 163</p> <p>1 form. 2 A. I'm not -- I'm not sure I 3 follow. 4 Q. So what we have is the system is 5 configured such that after indication of 6 the user the input is received, do you see 7 that on lines 51 to 52 in column 30? Do 8 you see -- 9 A. Yes. 10 Q. -- indication user input is 11 received? 12 And if you look across at line 13 55 of column 29, above it says there's the 14 application configured for execution by at 15 least one of the plurality of mobile 16 devices, and when executed, configured to 17 cause the at least one mobile device to, 18 and then it says at line 55, receive an 19 indication of a user input in connection 20 with the option displayed. 21 A. With the option displayed, yes. 22 Q. So here going back to disputed 23 claim 16, you have after indication of 24 user input is received -- 25 A. After the indication of the user</p>	<p style="text-align: right;">Page 165</p> <p>1 configured to do something, it could refer 2 to one of the already mentioned components 3 of that system doing it. 4 Q. That was -- you made that point 5 much more succinctly than I was able to 6 do. 7 And so again, looking at this, 8 the wherein clause recites that the system 9 was configured to achieve the limitation 10 of disputed claim term 16, it's not adding 11 any new or separate structural element to 12 the claim, is that fair? 13 A. It's not adding any new 14 component, but rather describing what the 15 system already introduced can also do or 16 perhaps constraining what the system can 17 do. 18 Q. Okay. And as we discussed, that 19 system is all of the components that were 20 recited in claim one, essentially, 21 correct? 22 A. Yes. 23 Q. Okay. And so here as system is 24 defined as all these various components in 25 claim one of the 899 patent, you would</p>

<p style="text-align: right;">Page 166</p> <p>1 agree that the use of system in disputed</p> <p>2 claim term 16 isn't a generic nonce word</p> <p>3 that is being used to add additional</p> <p>4 structure that is defined functionally, is</p> <p>5 that fair?</p> <p>6 A. I'm going to take a minute just</p> <p>7 to look at my declaration --</p> <p>8 Q. Yes, please.</p> <p>9 A. -- see what I've testified to</p> <p>10 about that.</p> <p>11 Is there a question pending?</p> <p>12 MR. DAHLGREN: I'll refer to our</p> <p>13 court reporter.</p> <p>14 [The requested portion of the</p> <p>15 record was read.]</p> <p>16 A. What I would say is that I agree</p> <p>17 that the use of system within the wherein</p> <p>18 clause doesn't add a new component, but</p> <p>19 what I would say is that by using system</p> <p>20 to perform some feature, support some</p> <p>21 claim feature, you can't tell or it didn't</p> <p>22 specify which component is performing or</p> <p>23 supporting that feature.</p> <p>24 Q. But the system is the sum of all</p> <p>25 the components that are recited therein?</p>	<p style="text-align: right;">Page 168</p> <p>1 MR. TYSON: I object to the</p> <p>2 form.</p> <p>3 A. What I agreed with was that it's</p> <p>4 not adding a new component beyond what was</p> <p>5 already set forth in the claim.</p> <p>6 Q. Okay. And when you say</p> <p>7 component, it's not adding a new</p> <p>8 structural component, of course?</p> <p>9 A. Yeah, the building, you have the</p> <p>10 broadcast communication units, you have</p> <p>11 the code, you have the mobile devices, you</p> <p>12 have the server, so it's not adding any --</p> <p>13 to any of those.</p> <p>14 Q. Okay. Okay. You say in</p> <p>15 paragraph 127 --</p> <p>16 A. Of my declaration?</p> <p>17 Q. Of your declaration, Goldberg</p> <p>18 Exhibit 3, it's on page 55, that you've</p> <p>19 been informed to understand that system</p> <p>20 has been explicitly recognized by courts</p> <p>21 as a nonce word, do you see that?</p> <p>22 A. I see it, yeah.</p> <p>23 Q. Do you know if any of those</p> <p>24 court decisions were evaluating system</p> <p>25 when it was used in a wherein clause?</p>
<p style="text-align: right;">Page 167</p> <p>1 A. I agree.</p> <p>2 Q. And so by stating that the</p> <p>3 system is performing some functionality,</p> <p>4 it's not any additional component that is</p> <p>5 doing it, it's already part and parcel in</p> <p>6 the scope of the claim in terms of the</p> <p>7 component?</p> <p>8 A. I agree with that, but -- and</p> <p>9 system comprises hardware and software --</p> <p>10 Q. Correct?</p> <p>11 A. -- as we've seen, so by claiming</p> <p>12 a system does something didn't indicate</p> <p>13 whether it's the software doing it or the</p> <p>14 hardware doing it.</p> <p>15 MR. DAHLGREN: Off the record.</p> <p>16 [A recess was taken.]</p> <p>17 Q. So Dr. Goldberg, we discussed</p> <p>18 claim one and how the system, the language</p> <p>19 disputed in claim term 16 is in a wherein</p> <p>20 clause and that it's not reciting any</p> <p>21 additional structural component in terms</p> <p>22 of functional language, since it's already</p> <p>23 defined to encompass the entire claim, and</p> <p>24 you agree with that point, right?</p> <p>25 A. Well --</p>	<p style="text-align: right;">Page 169</p> <p>1 A. No, that's not something I would</p> <p>2 be aware of.</p> <p>3 Q. Okay. So you don't know the</p> <p>4 context in which the courts determined</p> <p>5 that system was a nonce word?</p> <p>6 A. That's correct, I've set forth</p> <p>7 here what I understand from Counsel.</p> <p>8 Q. Okay. Did that information that</p> <p>9 they relayed to you that system has been</p> <p>10 recognized as a nonce word, did that have</p> <p>11 a significant effect on your decision on</p> <p>12 how you interpreted these system claims</p> <p>13 that are in dispute?</p> <p>14 A. To be clear, I was only asked to</p> <p>15 opine on certain limitation, and whether</p> <p>16 or not there was sufficient structure</p> <p>17 within the claim to support that</p> <p>18 limitation, or within the specification,</p> <p>19 and so this, whether system was a nonce</p> <p>20 word or not, did not play a role in my</p> <p>21 consideration.</p> <p>22 Q. Okay. So I'd like to look at</p> <p>23 claim seven of the 899 patent, this is</p> <p>24 also relevant to disputed claim 16. And</p> <p>25 if you look at column 32, line 62 through</p>

<p style="text-align: right;">Page 170</p> <p>1 through line 64, and you see again that  2 it's a -- the system is being referenced  3 in a wherein clause, do you see that?  4 A. I do.  5 Q. And like claim one, you  6 understand that system refers to all the  7 components that are recited in the claim,  8 correct?  9 A. That's the way I read that.  10 Q. And you'd agree that the  11 reference to system in the wherein clause  12 is not introducing a new structural  13 component, correct?  14 A. I agree it's not introducing a  15 new component such as the building or the  16 broadcast units or the mobile device or  17 the computer code. I understand it's  18 referring to the elements that are already  19 laid out in the claim.  20 Q. Okay. And just so I understand,  21 it's your position that even though system  22 is not attempting to add an additional  23 structural component that's defined solely  24 by functional language, that it still  25 falls under the means plus function</p>	<p style="text-align: right;">Page 172</p> <p>1 wherein clauses was adding some new claim  2 element that relied solely on functional  3 language, and again, I want to say new  4 claim element in addition to what was  5 already recited in the claim in terms of  6 the structural components?  7 A. I don't recall making such an  8 assertion.  9 Q. Okay.  10 A. My -- I will say as a general  11 statement that my declaration speaks for  12 itself, and if I don't remember something  13 that's in my declaration, I still stand by  14 it of course.  15 Q. Understand, understand. And you  16 did review your declaration yesterday,  17 though.  18 A. I did.  19 Q. So you're somewhat familiar with  20 it?  21 A. Yes, certainly.  22 Q. And if at any point in time you  23 want to refer to it for a moment, please  24 just let me know, and we'll give you the  25 time.</p>
<p style="text-align: right;">Page 171</p> <p>1 exception, is that right?  2 MR. TYSON: I object to the  3 form.  4 A. Can you --  5 Q. Sure.  6 A. -- refer me to my declaration  7 where I said that?  8 Q. Yes. So you start discussing  9 the system claim limitations on page 54 of  10 your declaration, Exhibit 3.  11 A. Okay.  12 Q. And what I don't see discussed  13 here is whether there is any relevance to  14 your analysis if the recitation of system  15 in these disputed limitations is not  16 adding an additional structural component  17 even if defined by the functional  18 language, is that more clear or did I  19 even --  20 A. No.  21 Q. -- further muddy the waters?  22 So again, in your discussion of  23 the system claim limitations on certain  24 patents, I did not see anywhere that you  25 stated that the use of system in the</p>	<p style="text-align: right;">Page 173</p> <p>1 A. Sure.  2 Q. So again, I guess the same  3 point, and this may be duplicative of what  4 I already asked you, but you'd agree that  5 the system in the wherein clause in claim  6 seven of the 899 patent that's disputed  7 claim term 16, that that's not a new  8 structural element, correct?  9 MR. TYSON: I object to the  10 form.  11 A. As I said, I read that as  12 describing some aspect of the system as  13 already described in the previous  14 limitations appearing in that claim.  15 Q. Okay.  16 A. It's not a new component of the  17 system.  18 Q. So now if you can turn to claim  19 nine of the 899 patent. Claim nine begins  20 on column 33 of the 899 patent which is  21 Exhibit 1.  22 A. Yes.  23 Q. The disputed system claim term  24 16 is found in column 34, beginning around  25 line 58, it says wherein the system is</p>

<p style="text-align: right;">Page 174</p> <p>1 configured.</p> <p>2 A. I see it.</p> <p>3 Q. And so it's the same questions I</p> <p>4 asked you with respect to claims one and</p> <p>5 seven, you would agree that the recitation</p> <p>6 of system in the written clause in</p> <p>7 disputed claim 16 is not adding an</p> <p>8 additional structural component to the</p> <p>9 claim, correct?</p> <p>10 A. I'll just clarify, it's disputed</p> <p>11 claim term 16 you're referring to.</p> <p>12 Q. I'm sorry, if I left out term,</p> <p>13 please -- thank you for correcting me.</p> <p>14 A. More than understandable. So to</p> <p>15 answer the question I think you're trying</p> <p>16 to ask here to in claim nine, the system</p> <p>17 that appears within the wherein clause, I</p> <p>18 don't read it as adding a new component,</p> <p>19 but rather describing some behavior by the</p> <p>20 system as already described in the</p> <p>21 previous claim elements.</p> <p>22 Q. Okay. So now I'd like to turn</p> <p>23 to claim 11, and this is disputed claim</p> <p>24 17.</p> <p>25 A. Term 17.</p>	<p style="text-align: right;">Page 176</p> <p>1 in Exhibit 5 for disputed claim term 18, I</p> <p>2 don't think further is part of it, there</p> <p>3 might be a typo there, I just wanted to</p> <p>4 point that out. It says the system is</p> <p>5 configured such that the option of -- I'm</p> <p>6 sorry, I was looking at claim seven, so</p> <p>7 that probably accounts for the</p> <p>8 discrepancy. Sorry.</p> <p>9 Turn to claim one, wherein the</p> <p>10 system is further configured.</p> <p>11 A. That's it, column 30, line 60.</p> <p>12 Q. That's where the confusion is.</p> <p>13 And again, as with the other questions</p> <p>14 that I've asked regarding these disputed</p> <p>15 system limitations, you would agree that</p> <p>16 the recitation of system in disputed claim</p> <p>17 18 is not adding an additional structural</p> <p>18 component to claim one of the 899 patent,</p> <p>19 correct?</p> <p>20 A. So I agree that the reference to</p> <p>21 the system within the wherein clause is</p> <p>22 not adding a new component to the system.</p> <p>23 I'll note as I said in my declaration that</p> <p>24 disputed claim term 18 doesn't say what</p> <p>25 component within the system is configured</p>
<p style="text-align: right;">Page 175</p> <p>1 Q. Thank you. I would like to turn</p> <p>2 to claim 11 of the 899 patent and disputed</p> <p>3 claim term 17, and you can find disputed</p> <p>4 claim term 17 in column 36 of the 899</p> <p>5 patent, it's Exhibit 1, and again, it's</p> <p>6 present in a wherein clause wherein the</p> <p>7 system is configured.</p> <p>8 A. I see that at line 45 of column</p> <p>9 36.</p> <p>10 Q. Yes. And it says the system is</p> <p>11 further configured.</p> <p>12 A. I see that.</p> <p>13 Q. And so again, looking at this</p> <p>14 claim, it's your understanding that the</p> <p>15 reference to system in the wherein clause</p> <p>16 of claim 11 is not adding an additional</p> <p>17 structural component to the claim that's</p> <p>18 not already present, is that fair?</p> <p>19 A. It is not adding a new component</p> <p>20 to the -- to the claim, I agree.</p> <p>21 Q. Okay. Now if we can turn back</p> <p>22 to claim one of the 899 patent, and we</p> <p>23 will be discussing disputed claim term 18,</p> <p>24 so I think unless there's a correction to</p> <p>25 the claims here that I'm missing, I think</p>	<p style="text-align: right;">Page 177</p> <p>1 to perform the limitation specified in</p> <p>2 disputed claim 18, but I agree that these</p> <p>3 system referred to this disputed claim 18</p> <p>4 refers to the components already described</p> <p>5 previously in claim one.</p> <p>6 Q. Okay. I'm trying to think of</p> <p>7 probably a bad analogy or something like</p> <p>8 that, but if you had a claim that recited</p> <p>9 an automobile with computer engine,</p> <p>10 various features, wherein said automobile</p> <p>11 was capable of using cruise control, would</p> <p>12 you say that that would be indefinite</p> <p>13 because the automobile, there's a computer</p> <p>14 or some type of specially programmed</p> <p>15 module to monitor and control speed -- I'm</p> <p>16 trying to think of an example to kind of</p> <p>17 make this more clear. I don't know. Is</p> <p>18 that a bad example, analogy?</p> <p>19 MR. TYSON: I object to the</p> <p>20 form.</p> <p>21 MR. DAHLGREN: Is it a form</p> <p>22 objection?</p> <p>23 MR. TYSON: It calls for</p> <p>24 speculation.</p> <p>25 A. Well, I think the analogy does</p>

<p style="text-align: right;">Page 178</p> <p>1 hold in the sense that it doesn't -- this  2 automobile consisting of a bunch of things  3 doesn't say how the automobile responds to  4 the cruise control, so if it's just an  5 automobile responding to cruise control,  6 for example, then that doesn't tell me how  7 to go about making the automobile respond  8 to cruise control, and that's similar to  9 the analogy that -- to what my opinions  10 are in my declaration.  11 Q. So here we have, you know, the  12 system has building, broadcast short-range  13 communication units, server, mobile  14 devices, various protocols are involved,  15 servers, messages, there's an application  16 or code, you know, depending on the  17 particular claim that we're talking about,  18 so there are a number of components that  19 are present in the system, right?  20 A. I agree with that.  21 Q. And if I understand correctly,  22 your contention is that because system  23 isn't parsed to specify one of the  24 subcomponents that is responsible for  25 performing the alleged function, that</p>	<p style="text-align: right;">Page 180</p> <p>1 one of skill would know how to do it.  2 Q. Okay. If -- and so if I  3 understand correctly, so you're not  4 opining on the ultimate question of  5 indefiniteness, I understand that, instead  6 you are opining on whether the disputed  7 limitation has sufficient structure in it  8 to perform the function, and if not,  9 whether there is sufficient structure  10 linked to that functionality that's  11 disclosed in provision or the application  12 for patents, applications for the patents  13 in suit, is that fair?  14 A. Yes, that -- that's consistent  15 with what I was asked to do.  16 Q. Okay.  17 A. Let me just remark that I think  18 it's -- I'm sure I set forth in my  19 declaration what exactly I was asked to  20 do.  21 Q. Understand. Understand.  22 A. Okay.  23 Q. We did disputed claim term 18,  24 which is in one, now if you look at  25 disputed claim term 19 that is present in</p>
<p style="text-align: right;">Page 179</p> <p>1 that's what makes it indefinite -- or  2 falls under means plus function, the  3 exception, and is therefore indefinite  4 because you can't tie the function to an  5 aspect of the claim, is that fair?  6 MR. TYSON: Objection.  7 A. Well, let me just note that I  8 have not been asked to opine whether these  9 claims are indefinite or not. Counsel's  10 informed me that's a legal conclusion.  11 All I've been asked to do is for a number  12 of limitations, I've been asked to  13 determine whether there is sufficient  14 structure within the claim for one of  15 skill to understand how to implement the  16 functional elements that I've been asked  17 about, and if not, whether there is  18 sufficient structure within the disclosure  19 of the specification and the provisional  20 application --  21 Q. Okay.  22 A. -- to determine structure. So  23 I've been provided the functional --  24 statements of function and asked is that  25 supported by sufficient structure so that</p>	<p style="text-align: right;">Page 181</p> <p>1 claims seven and nine of the 899 patent,  2 that's Exhibit 1. In claim seven of the  3 899 patent, you can find the disputed  4 claim term language at the bottom of  5 column 32, I believe.  6 A. Yes, starting at line 65.  7 Q. Yes, so seven is configured, I  8 think nine is -- well, nine is also  9 configured. I don't see --  10 A. I don't see further.  11 Q. Further configured -- that may  12 be a typo. Setting aside the use of  13 further in disputed claim term 19, you  14 would agree that disputed claim term 19 in  15 claim seven is also present within the  16 wherein clause, correct?  17 A. Yes.  18 Q. And so again, as previously, you  19 would agree that the use of system in the  20 wherein clause is not adding any  21 additional structural component to the  22 claim that's already present?  23 A. As I've testified, use of the  24 system refers to the system as already  25 introduced as a collection of components</p>

<p style="text-align: right;">Page 182</p> <p>1 laid out in claim seven.</p> <p>2 Q. And turning to claim nine, the</p> <p>3 same question, and again, this is disputed</p> <p>4 claim term 19 language at the bottom of</p> <p>5 column 34, but again, you would agree that</p> <p>6 because the system recited in the wherein</p> <p>7 clause does not add any additional</p> <p>8 structural components to the claim that</p> <p>9 are not already present, correct?</p> <p>10 A. So as I've testified in my</p> <p>11 previous answer, in fact, the system</p> <p>12 referred to at the bottom of column 34,</p> <p>13 line 59 is the system of claim nine</p> <p>14 introduced at line 47 of column 33</p> <p>15 consisting of a collection of components</p> <p>16 already set forth in the claim nine.</p> <p>17 Q. Okay. Now, if we look at</p> <p>18 disputed claim 20, we have a wherein</p> <p>19 clause, this time -- I'm trying to find</p> <p>20 where it is here -- it refers to the</p> <p>21 application, and this is claim 11 of the</p> <p>22 899 patent, and you can see the disputed</p> <p>23 language of claim term 20 towards the</p> <p>24 bottom of column 36.</p> <p>25 A. Give me a moment to look at</p>	<p style="text-align: right;">Page 184</p> <p>1 A. I agree.</p> <p>2 Q. And it's also the same</p> <p>3 application that's referred to in</p> <p>4 column -- excuse me, column 36, line 32?</p> <p>5 A. I agree.</p> <p>6 Q. And so you'd agree that the use</p> <p>7 of the wherein clause referring to the</p> <p>8 application is not adding an additional</p> <p>9 component to claim 11 of the 899 patent,</p> <p>10 right?</p> <p>11 A. I agree, it's specifying</p> <p>12 additional function of the said</p> <p>13 application.</p> <p>14 Q. Turning to disputed claim 21,</p> <p>15 disputed claim term 21 found in claims</p> <p>16 seven and nine of the 899 patent. So</p> <p>17 beginning with claim seven --</p> <p>18 A. Give me a moment --</p> <p>19 Q. Sure.</p> <p>20 A. -- to read disputed claim term</p> <p>21 21.</p> <p>22 Q. Yes, disputed claim term 21, and</p> <p>23 I think it will just inform your reading</p> <p>24 of claim seven if you note that in column</p> <p>25 32, line 58 there is a break where it's</p>
<p style="text-align: right;">Page 183</p> <p>1 that --</p> <p>2 Q. Sure.</p> <p>3 A. -- disputed claim 20. Can you</p> <p>4 repeat where in claim 11 I could see that?</p> <p>5 Q. In claim 11, I believe that you</p> <p>6 will find it around line 53 of column 36.</p> <p>7 Further wherein, the application when</p> <p>8 executed is configured to permit a</p> <p>9 determination as to whether the one or</p> <p>10 more mobile device application actions</p> <p>11 including causing to be output to visual</p> <p>12 information is triggered.</p> <p>13 A. Okay, I see it, thank you.</p> <p>14 Q. And that was not grouped in the</p> <p>15 system claims in your declaration, and</p> <p>16 just so you know, you address it beginning</p> <p>17 on page 49, it appears.</p> <p>18 A. Yes, that's true.</p> <p>19 Q. So I wanted to make that</p> <p>20 clarification, not to steer you wrong.</p> <p>21 Now, you would agree that the</p> <p>22 application in disputed claim term 20 is</p> <p>23 the same application that is recited on</p> <p>24 line 65 of column 35 that's also in claim</p> <p>25 11 of the 899 patent?</p>	<p style="text-align: right;">Page 185</p> <p>1 wherein, and so each of the following</p> <p>2 limitations is part of that wherein</p> <p>3 clause.</p> <p>4 A. Yes.</p> <p>5 Q. Do you see what I'm talking</p> <p>6 about?</p> <p>7 A. I do.</p> <p>8 Q. And so with that understanding,</p> <p>9 as we discussed with the other claims, you</p> <p>10 would agree that the recitation of the</p> <p>11 system configured such that different</p> <p>12 brand-specific visual information is</p> <p>13 caused to be output, that is not adding an</p> <p>14 additional structural component to the</p> <p>15 claim that is not already present,</p> <p>16 correct?</p> <p>17 A. I agree that the reference of</p> <p>18 the system here is referring to, in total,</p> <p>19 all the components of the system already</p> <p>20 laid out in claim seven, and this provides</p> <p>21 an additional function of that system.</p> <p>22 Q. Okay. And if we look at claim</p> <p>23 nine, again you'll see that the wherein</p> <p>24 clause is kind of set off on line 58 of</p> <p>25 column 34, and the disputed claim term 21</p>

<p style="text-align: right;">Page 186</p> <p>1 language is found in column 35 lines 12 2 through 15? 3 A. Yes, that's correct. 4 Q. And the same as with the other 5 system terms that we discussed, that are 6 part of wherein clauses, you would agree 7 that disputed claim term 21 in claim nine 8 of the 899 patent does not add any 9 additional structural components to the 10 claim that are not already present? 11 A. I agree that it adds no 12 components, but just specifies an 13 additional function of the system. 14 Q. So now it's disputed claim term 15 22, and it's claims four and 14 of the 899 16 patent, and we'll also have to turn to the 17 292 patent. So if you look at column 31 18 of the 899 patent, it's Exhibit 1, 19 beginning around line five, it says a 20 system of claim one, wherein the system is 21 configured such that the output of the 22 mobile device application, visual 23 information is conditionally caused based 24 on whether a mobile device-specific 25 threshold has been met.</p>	<p style="text-align: right;">Page 188</p> <p>1 Exhibit 2, disputed claim term 22 appears 2 in claims five and 18. I direct your 3 attention to claim five to begin, and 4 that's at the bottom of column 38. 5 A. I see it. 6 Q. And again, this is essentially 7 the same question as I've asked with 8 respect to the other claims, but you would 9 agree that the use of system in the 10 wherein clause of claim five of the 292 11 patent does not add any additional 12 structural components that were not 13 already present in claim one of the 292 14 patent, correct? 15 A. Similar to my previous answers, 16 my reading claim five does not add any 17 components to the system of claim one 18 other than what was already specified in 19 claim one, but adds an additional 20 function. 21 Q. And turning to claim 18, with 22 respect to claim 15 -- strike that. 23 You would agree that claim 18 24 and its recitation of system in the 25 wherein clause does not add any structural</p>
<p style="text-align: right;">Page 187</p> <p>1 A. Okay, I see that. 2 Q. And you would agree that as we 3 discussed with the other claims that this 4 depending claim with the wherein clause, 5 claim four of the 899 patent is not adding 6 any additional structural components that 7 are not already present in claim one? 8 A. Similar to my previous answers, 9 I viewed claim four, the wherein clause, 10 as describing an additional function of 11 the system whose components are already 12 laid out in claim one. 13 Q. If you can turn to claim 14, and 14 that should be at the top of column 37 of 15 899 patent and it's essentially the same, 16 and so I just ask whether you agree that 17 the wherein clause and the use of system 18 in claim 14 does not add any additional 19 structural components that were not 20 already present in claim 11, correct? 21 A. Similar to claim four, claim 14 22 does not add any components to the system 23 of claim 11, but rather recites an 24 additional function of that system. 25 Q. Turning to the 292 patent,</p>	<p style="text-align: right;">Page 189</p> <p>1 components that were not already present 2 in claim 15, correct? 3 A. Similar to my previous answer, 4 claim 18 does not add any component to 5 claim -- to the system of claim 15 that 6 was not already specified in claim 15, but 7 rather recites an additional function of 8 that system. 9 Q. So now moving on to disputed 10 claim 23, and we can stick with the 292 11 patent and do that first, claims eight and 12 21 of the 292 patent, it's Exhibit 2, 13 involve disputed claim term 23. And 14 conveniently, we're still in column 42. 15 If you look down to claim 21, 16 that's disputed claim term 23, and again, 17 it's a wherein depending claim -- excuse 18 me, it's a depending claim of claim 15 19 wherein the system is configured to 20 achieve the limitation that's recited in 21 the claim. 22 A. I've lost -- so I think I've 23 lost where we are, because -- 24 Q. Sure. 25 A. For claim term 23, disputed</p>

<p style="text-align: right;">Page 190</p> <p>1 claim term 23, in the 292 patent, it's</p> <p>2 claims eight and 21.</p> <p>3 Q. Correct, and I was going to 21</p> <p>4 first, since we were already on that same</p> <p>5 column, but did you move to --</p> <p>6 A. Twenty-one is not in column 40.</p> <p>7 Q. I thought I said 42, I apologize</p> <p>8 if I misspoke.</p> <p>9 A. So now I'm with you on claim 21</p> <p>10 of the 292 patent.</p> <p>11 Q. Okay.</p> <p>12 A. Reciting the --</p> <p>13 Q. System claim of claim -- the</p> <p>14 system of claim 15 wherein the system is</p> <p>15 configured.</p> <p>16 A. Right, and it includes the</p> <p>17 language of disputing claim term 23.</p> <p>18 Q. Correct.</p> <p>19 A. Okay.</p> <p>20 Q. And my question, and again,</p> <p>21 similar to what I've been asking</p> <p>22 previously, you would agree that claim 21</p> <p>23 and the language of disputed claim term 23</p> <p>24 do not add any additional structural</p> <p>25 components that are not already recited in</p>	<p style="text-align: right;">Page 192</p> <p>1 Q. And again, the same question,</p> <p>2 you would agree that the disputed claim</p> <p>3 term language in disputed claim term 23</p> <p>4 does not add any structural components</p> <p>5 beyond what is already recited in claim 11</p> <p>6 of the 899 patent, correct?</p> <p>7 A. Well, to be precise, you're</p> <p>8 asking about claim 18, right?</p> <p>9 Q. I'm saying in that claim 18,</p> <p>10 and -- correct. So disputed claim 23</p> <p>11 corresponds to claim 18 of the 899 patent.</p> <p>12 A. I'm sorry, disputed claim term</p> <p>13 23 --</p> <p>14 Q. Correct.</p> <p>15 A. -- I agree that it corresponds</p> <p>16 to claim 18 of the 899 patent.</p> <p>17 Q. And you would agree that claim</p> <p>18 18 does not add any additional structural</p> <p>19 components beyond what is recited in claim</p> <p>20 11, correct?</p> <p>21 A. Claim 18 does not add any</p> <p>22 components to the system of claim 11, but</p> <p>23 rather specifies an additional function of</p> <p>24 that system.</p> <p>25 Q. Okay. I think we're in luck,</p>
<p style="text-align: right;">Page 191</p> <p>1 claim 15, correct?</p> <p>2 A. Claim 21 adds no component to</p> <p>3 the system of claim 15, but rather recites</p> <p>4 additional function of claim -- of the</p> <p>5 system of claim 15.</p> <p>6 Q. And turning to the claim eight</p> <p>7 of the 292 patent, which is in column 39.</p> <p>8 A. I see it.</p> <p>9 Q. I'll just ask the same question,</p> <p>10 you would agree that the disputed claim</p> <p>11 term 23 language that is found in claim</p> <p>12 eight of 292 patent does not add any</p> <p>13 additional structural components that are</p> <p>14 not already present in claim one?</p> <p>15 A. Claim eight does not add any</p> <p>16 components to the system of claim one</p> <p>17 beyond what was already recited in claim</p> <p>18 one, but it does recite an additional</p> <p>19 function of that system.</p> <p>20 Q. Okay. Now we can jump over to</p> <p>21 the 899 patent in claim 18, this is also</p> <p>22 implicating disputed claim term 23, and</p> <p>23 you can find it on column 37 of the 899</p> <p>24 patent, it's Exhibit 1.</p> <p>25 A. I see it.</p>	<p style="text-align: right;">Page 193</p> <p>1 disputed claim 24 is found in claim 19 of</p> <p>2 the 899 patent, so just moving down ever</p> <p>3 so slightly, the same question, would you</p> <p>4 agree that claim 19 does not add any</p> <p>5 additional structural components beyond</p> <p>6 what is recited in claim 11?</p> <p>7 A. Claim 19 does not add any</p> <p>8 components to the system of claim 11, but</p> <p>9 rather specifies an additional function of</p> <p>10 that system.</p> <p>11 Q. And we're going to jump to</p> <p>12 disputed claim term 26, just because it's</p> <p>13 found in claim 23 of the 899 patent.</p> <p>14 A. Okay.</p> <p>15 Q. And that's at line 55 of column</p> <p>16 37 of Exhibit 1. And the same question,</p> <p>17 you would agree that claim 23 does not add</p> <p>18 any structural components beyond what is</p> <p>19 recited in claim 11, correct?</p> <p>20 A. Claim 23 does not add any</p> <p>21 component to the system of claim 11, but</p> <p>22 rather specifies an additional function of</p> <p>23 that system.</p> <p>24 Q. Okay. If you could turn to the</p> <p>25 292 patent.</p>

<p style="text-align: right;">Page 194</p> <p>1 A. Yeah.</p> <p>2 Q. And we're going to go to</p> <p>3 disputed claim term 25, and that's present</p> <p>4 in claims one, 15 and 28. And if you look</p> <p>5 at column 32 of the 292 patent beginning</p> <p>6 around lines 23 going to 34, there is a</p> <p>7 wherein clause --</p> <p>8 A. Could you repeat the column and</p> <p>9 line number?</p> <p>10 Q. Sure. It's column 32 and it's</p> <p>11 lines 23 through 34.</p> <p>12 A. Okay.</p> <p>13 Q. And there's a wherein clause, or</p> <p>14 wherein limitation referring to the system</p> <p>15 is configured to achieve what is recited</p> <p>16 in disputed claim term 25, and the</p> <p>17 question again, similar to everything I've</p> <p>18 asked you about these, is that you would</p> <p>19 agree that the wherein clause here and the</p> <p>20 reference to the system is not adding an</p> <p>21 additional structural component beyond</p> <p>22 what is already recited in claim one of</p> <p>23 the 292 patent, correct?</p> <p>24 A. I agree that the system referred</p> <p>25 to in this wherein clause is the system</p>	<p style="text-align: right;">Page 196</p> <p>1 A. I see it.</p> <p>2 Q. And the same question, you would</p> <p>3 agree that the reference to the system in</p> <p>4 the wherein clause in claim 28 of the 292</p> <p>5 patent is not adding any additional</p> <p>6 structural elements to the claim, correct?</p> <p>7 A. The system recited in the</p> <p>8 wherein clause, the bottom of column 45,</p> <p>9 is not adding a new component to the</p> <p>10 system as set forth in -- within claim 28,</p> <p>11 but rather reciting additional function of</p> <p>12 that system.</p> <p>13 Q. So now if you turn to claim 25</p> <p>14 of the 292 patent, this is disputed claim</p> <p>15 term 27, and you can find it, it's lines</p> <p>16 13 through 16 of column 43.</p> <p>17 A. I see it.</p> <p>18 Q. And again, the same type of</p> <p>19 question I've been asking previously, you</p> <p>20 would agree that claim 25 reciting wherein</p> <p>21 the system is configured to do what is set</p> <p>22 forth in disputed claim term 27 that is</p> <p>23 not adding any structural components that</p> <p>24 are not already present in claim 15, fair?</p> <p>25 A. Claim 25 does not add any new</p>
<p style="text-align: right;">Page 195</p> <p>1 whose components are already set forth</p> <p>2 in -- in claim one, but rather recites an</p> <p>3 additional function of the system.</p> <p>4 Q. Okay. With respect to claim 15,</p> <p>5 if you look at column 42, lines seven to</p> <p>6 19, similar wherein clause, and so I just</p> <p>7 ask the same question, whether you would</p> <p>8 agree that the wherein clause in reference</p> <p>9 to the system is not adding any additional</p> <p>10 structural components to claim 15, but</p> <p>11 merely further specifying functionality, I</p> <p>12 think is what you've been saying?</p> <p>13 A. Well, what I've been saying is</p> <p>14 that this wherein clause, the system</p> <p>15 recited in the wherein clause in column 42</p> <p>16 starting on line seven is referring to the</p> <p>17 system whose components are already listed</p> <p>18 previously in that claim, and that the</p> <p>19 wherein clause just specifies an</p> <p>20 additional function of that system.</p> <p>21 Q. Okay. Now turning to claim 28,</p> <p>22 one more with respect to disputed claim</p> <p>23 term 25, and this is at the bottom of</p> <p>24 column 45 and I think bridging over into</p> <p>25 top of column 46.</p>	<p style="text-align: right;">Page 197</p> <p>1 component to the system of claim 15, but</p> <p>2 rather recites an additional function of</p> <p>3 that system.</p> <p>4 Q. And now if you can turn to claim</p> <p>5 11, it's column 39, we're still in the 292</p> <p>6 patent, this disputed claim term 27,</p> <p>7 again, the same question, you'd agree that</p> <p>8 the recitation of the disputed claim term</p> <p>9 of 27 found in claim 11 does not add any</p> <p>10 additional structural components beyond</p> <p>11 what is already present in claim one of</p> <p>12 the 292 patent, correct?</p> <p>13 A. Claim 11 does not add any</p> <p>14 component to the system of claim one, but</p> <p>15 rather recites an additional function of</p> <p>16 that system.</p> <p>17 Q. So if we turn to claim 12 of the</p> <p>18 292 patent, we're jumping forward</p> <p>19 slightly, this is disputing claim term 29.</p> <p>20 A. Okay.</p> <p>21 Q. And again, it's the same</p> <p>22 question, you would agree that claim 12</p> <p>23 which contains disputed claim term 29 does</p> <p>24 not add any structural components beyond</p> <p>25 what is already set forth in claim one, is</p>

<p style="text-align: right;">Page 198</p> <p>1 that correct?</p> <p>2 A. The claim 12 of the 292 does not</p> <p>3 add any new components to the system of</p> <p>4 claim one, but rather recites an</p> <p>5 additional function of that system.</p> <p>6 Q. So turning back to the 899</p> <p>7 patent, disputed claim term 28 is present</p> <p>8 in claim 25 of the 899 patent, and that</p> <p>9 can be found on column 37, and again, it's</p> <p>10 Exhibit 1 of the 899 patent.</p> <p>11 A. I see it.</p> <p>12 Q. You would agree that claim 25</p> <p>13 and its recitation of disputed claim term</p> <p>14 28 does not add any structural components</p> <p>15 beyond what is already disclosed in claim</p> <p>16 11, correct?</p> <p>17 A. Claim 25 of the 899 patent does</p> <p>18 not add component to the system of claim</p> <p>19 11, but rather recites an additional</p> <p>20 function of that system.</p> <p>21 Q. And finally, turning to claim 28</p> <p>22 of the 899 patent, and this is on column</p> <p>23 38.</p> <p>24 A. I see it.</p> <p>25 Q. And this pertains to disputed</p>	<p style="text-align: right;">Page 200</p> <p>1 were not part of the invention, and I'm</p> <p>2 just trying to find -- find that, and I</p> <p>3 just want to ask you a few questions about</p> <p>4 that.</p> <p>5 Going to, for example, it's page</p> <p>6 19, paragraph 43, you talk about</p> <p>7 specification of the 197 application --</p> <p>8 sorry, did I give you a copy of the 197?</p> <p>9 Let me do that, I'm sorry. It will be</p> <p>10 helpful so that you have it in front of</p> <p>11 you.</p> <p>12 [Whereupon, at this time, the</p> <p>13 reporter marked as Goldberg Exhibit 6</p> <p>14 the above-mentioned system, method and</p> <p>15 computer program product for location</p> <p>16 and/or relevancy based triggers for</p> <p>17 mobile devices for identification.]</p> <p>18 Q. In paragraph 43, you state that</p> <p>19 the 197 application emphasizes that the</p> <p>20 environment for implementing the system as</p> <p>21 well as the environment for carrying out,</p> <p>22 implementing the following are not part of</p> <p>23 the invention, and I just wanted to kind</p> <p>24 of go through a couple of these citations</p> <p>25 that you included and just kind of try to</p>
<p style="text-align: right;">Page 199</p> <p>1 claim term 30. I would ask the same</p> <p>2 question, you would agree that claim 28</p> <p>3 and its recitation of disputed claim term</p> <p>4 30 does not add any additional structure</p> <p>5 beyond what is already recited in claim 11</p> <p>6 of the 899 patent, correct?</p> <p>7 A. Claim 28 does not add any</p> <p>8 component to the system of claim 11,</p> <p>9 rather it recites an additional function</p> <p>10 of that system.</p> <p>11 Q. Just some more, I guess, general</p> <p>12 questions.</p> <p>13 You understand that the claims</p> <p>14 define the scope of protection -- or</p> <p>15 excuse me, define the scope of the</p> <p>16 invention protected by a patent, right?</p> <p>17 A. As a layperson, that sounds</p> <p>18 right to me.</p> <p>19 Q. And you're familiar with patent</p> <p>20 specification disclosing multiple</p> <p>21 embodiments, is that correct?</p> <p>22 A. Yes.</p> <p>23 Q. There were a few statements in</p> <p>24 your declaration where I believe you said</p> <p>25 that the patents had said certain things</p>	<p style="text-align: right;">Page 201</p> <p>1 parse that a little bit.</p> <p>2 You cite to paragraph 27, it's</p> <p>3 on page five of the 197 application which</p> <p>4 is Exhibit 6 that was just handed to you.</p> <p>5 A. I see it.</p> <p>6 Q. And figure two illustrates an</p> <p>7 exemplary system 200, in accordance with</p> <p>8 one embodiment. As an option, the system</p> <p>9 may be implemented in the context of any</p> <p>10 of the devices of the network architecture</p> <p>11 100 of figure one, and then it says of</p> <p>12 course system 200 may be implemented in</p> <p>13 any desired environment.</p> <p>14 A. Yes.</p> <p>15 Q. And when you state that the</p> <p>16 environment for carrying out or</p> <p>17 implementing are not part of the</p> <p>18 invention, you would agree, though, that</p> <p>19 if it was implemented in the context of</p> <p>20 the network architecture 100 of figure</p> <p>21 one, I mean, that would be part of the</p> <p>22 invention, correct?</p> <p>23 A. I'm not sure I understand</p> <p>24 your -- your question. What I'm saying is</p> <p>25 that the caveat or disclaimer that you</p>

<p style="text-align: right;">Page 202</p> <p>1 find throughout the 197 patent says, well,  2 here's one way to do it, but essentially  3 any way you do it, any way you carry out  4 this function is -- would be covered.  5 And so the disclaimer in  6 paragraph 27 specifically says, well, you  7 can implement system 200 in any  8 environment, not necessarily described in  9 this -- in this specification, and it  10 would still be covered.  11 And so the actual implementation  12 set forth in the 197 application is not  13 what defines the invention, and it appears  14 to be the function that was claimed is the  15 invention, not the structure provided in  16 the embodiment in the specification.  17 Q. So it's your opinion that where  18 a patentee states that there may be other  19 ways of implementing the invention beyond  20 what is disclosed expressly in the various  21 embodiments, that they're somehow stating  22 that it's not part of their invention? I  23 just don't see how that follows.  24 MR. TYSON: I object to the  25 form.</p>	<p style="text-align: right;">Page 204</p> <p>1 Q. So you would say that the  2 statement that the system 200 may be  3 implemented in any desired environment is  4 a disclaimer? And I'm not asking for like  5 a legal opinion, but you believe that that  6 is somehow an admission that it's not part  7 of the invention?  8 MR. TYSON: Objection to the  9 form.  10 A. That it doesn't describe the  11 scope of the invention.  12 Q. If you look at paragraph 49 on  13 page ten of the 197 application, it talks  14 about figure four and a method for  15 providing a relevancy-based trigger for  16 mobile device in accordance with another  17 embodiment, and you understand that the  18 reference to embodiment in the patent  19 specification refers to embodiments of the  20 invention, correct?  21 A. Yes.  22 Q. So what paragraph 49's saying in  23 the first sentence is that this  24 illustrates a method that's in accordance  25 with the embodiment of the invention, are</p>
<p style="text-align: right;">Page 203</p> <p>1 Q. Let me strike that.  2 So you said -- the patent is  3 saying here's one way to do it, but you  4 can do it any way you want, is that kind  5 of a fair characterization of what you  6 were saying before?  7 A. I think that's -- that's fair.  8 We claim some function, and any way you  9 carry out that function is fine, it's  10 covered.  11 Q. But if the system 200 was  12 implemented in the context of the devices  13 of the network architecture 100 of figure  14 one, you would not dispute that that's  15 part of -- that would be part of the  16 invention, correct?  17 A. I would not dispute that the  18 actual -- any actual embodiment that's  19 described in the 197 would be covered  20 under the claims, I'm not saying that the  21 -- that the system 200 is not -- is  22 outside of the claims, what I'm saying is  23 that the structure of system 200 does not  24 seem to -- to describe the scope of that  25 claim at all because of the disclaimer.</p>	<p style="text-align: right;">Page 205</p> <p>1 you with me?  2 MR. TYSON: I object.  3 A. Yes, I think that's right.  4 Q. And then it says as an option,  5 the method may be implemented in the  6 context of the architecture environment of  7 the previous figures and/or any subsequent  8 figures, do you see that?  9 A. I do.  10 Q. And so that's saying that this  11 aspect of the invention, according to this  12 embodiment, that you can implement it in  13 different architectures and environments  14 that are disclosed in the 197 application,  15 correct?  16 A. Yup, yes.  17 Q. And you would agree that up  18 until that point that that's referring to  19 the use of this relevancy-based trigger in  20 these environments as one of the  21 inventions of the patent suit -- or excuse  22 me, of the 197 application, is that fair?  23 A. Well, it's an example of the  24 implementation of method 400 described in  25 the patent is an example of what the</p>

<p style="text-align: right;">Page 206</p> <p>1 patentee believes is the invention.  2 Q. And it's your opinion that the  3 fact that the patentee attempted to  4 include some broad hedging language that  5 the method could be carried out in any  6 desired environment, that that somehow  7 means the environment is no longer part of  8 the invention period?  9 A. That the environment in which  10 the method is carried out does not set  11 forth the scope of the invention, I think  12 is the way I view it. It's not that the  13 environment disclosed is not an example of  14 the invention, but rather it does not set  15 forth the meets and bounds of the  16 invention.  17 Q. Because it's essentially  18 unbounded, is that your opinion?  19 A. The language says you can do it  20 any way you want.  21 Q. It says you can do it one way,  22 as an option, you can do it another way,  23 or really you can do it any way, is that  24 fair?  25 A. Yeah, that's a fair</p>	<p style="text-align: right;">Page 208</p> <p>1 in the claims are not required to be  2 recited verbatim in the specification, is  3 that your understanding?  4 A. Yes.  5 Q. At a lay, non-attorney level?  6 A. Yes, it is.  7 Q. Have you ever been informed that  8 functions such as storing, receiving and  9 processing can be supported by a general  10 purpose computer?  11 A. I don't know if --  12 Q. Without any need to have a  13 specialized or specially programmed  14 computer.  15 A. I don't know if I formed that or  16 not. You're just talking about the  17 generic operations of storing,  18 receiving --  19 Q. Storing, receiving or  20 processing, that those can be adequately  21 supported by the disclosure of a general  22 purpose computer?  23 A. From a legal point of view, I  24 don't recall.  25 Q. Okay. And this was more just</p>
<p style="text-align: right;">Page 207</p> <p>1 characterization.  2 Q. And so you would agree that at  3 least in the first two instances where  4 it's specified in detail and not just some  5 do it any way you want, that that would be  6 still within the scope of the invention?  7 A. Within the scope --  8 MR. TYSON: I object to the  9 form.  10 THE WITNESS: Sorry.  11 A. Within the scope, I agree with  12 that, but it does not set forth the scope,  13 it doesn't provide structure.  14 Q. Well, the claims define the  15 actual scope, right, and that's a legal  16 question, we don't need to -- I'll strike  17 that.  18 A. Okay.  19 Q. That's fine, I'm not asking for  20 a legal opinion. It might be best for the  21 lawyers to figure that out in briefing.  22 And I'm sorry, I want to get off  23 the law stuff quickly, but I want to make  24 sure I got your understanding of this  25 correctly. You understand that the words</p>	<p style="text-align: right;">Page 209</p> <p>1 when you were being informed of the legal  2 standards, so I was just curious.  3 A. I don't recall.  4 Q. Okay. In looking at the  5 materials listed in your declaration, and  6 you said that the only other thing you had  7 looked at aside from that was some Agis  8 trial transcript, I didn't see reference  9 to the prosecution histories of the 899  10 patent or the 292 patent, were those not  11 part of the materials that you reviewed in  12 forming your opinions?  13 A. I don't -- that's correct, I  14 don't recall reviewing those.  15 Q. Okay. You don't recall or you  16 didn't or --  17 A. I certainly didn't review them  18 in preparation for this deposition.  19 Q. Okay.  20 A. And to the best of my knowledge,  21 this list is complete.  22 Q. Okay.  23 A. So I don't -- I don't believe I  24 reviewed the file histories for the 899  25 and 292.</p>

<p style="text-align: right;">Page 210</p> <p>1 Q. Okay. You would agree that</p> <p>2 there's standard modules of software code</p> <p>3 that are well known and can be identified</p> <p>4 by name as connoting sufficient structure</p> <p>5 in a claim?</p> <p>6 MR. TYSON: I object to the</p> <p>7 form.</p> <p>8 A. I mean, I'd have to -- I guess</p> <p>9 I'd have to see the context, but if they</p> <p>10 were identified by name in a claim, I</p> <p>11 suspect that would provide some -- some</p> <p>12 structure, but I'd have to look at the</p> <p>13 actual example.</p> <p>14 Q. And I don't know if, like for</p> <p>15 example, a Bluetooth communication</p> <p>16 protocol would be considered like a</p> <p>17 standard module software code identified</p> <p>18 by name, that might be a bad example.</p> <p>19 A. I'd have to see the context, but</p> <p>20 as we've discussed, you know, reciting the</p> <p>21 Bluetooth communications protocol does</p> <p>22 inform one of skill about certain features</p> <p>23 of the Bluetooth --</p> <p>24 Q. Okay.</p> <p>25 A. -- system.</p>	<p style="text-align: right;">Page 212</p> <p>1 can be used by a developer.</p> <p>2 Q. Okay. You had mentioned this</p> <p>3 Agis matter, do you recall opining on the</p> <p>4 term CPU software?</p> <p>5 A. I don't recall, I didn't notice</p> <p>6 that in my review of my testimony in that</p> <p>7 case.</p> <p>8 Q. We talked, I think, a little bit</p> <p>9 before, and correct me if I'm wrong, we're</p> <p>10 talking about applications and programs,</p> <p>11 and I believe applications were a subset</p> <p>12 of programs, is that correct?</p> <p>13 A. Yes.</p> <p>14 Q. Are you aware that courts have</p> <p>15 found that the term program is</p> <p>16 sufficiently specific so that it does not</p> <p>17 fall under means plus function?</p> <p>18 A. I'm not -- I'm not aware one way</p> <p>19 or the other, I don't know the case law</p> <p>20 regarding that.</p> <p>21 Q. Okay. Do you recall doing work</p> <p>22 for a party, I believe it's called</p> <p>23 Typemock?</p> <p>24 A. Yes.</p> <p>25 Q. Do you recall opining on a</p>
<p style="text-align: right;">Page 211</p> <p>1 Q. And are there classes of</p> <p>2 software subroutines that are well known</p> <p>3 to perform various functions that a person</p> <p>4 skilled in the art could utilize if they</p> <p>5 were developing a network?</p> <p>6 A. Yes, so one of skill would know</p> <p>7 about various resources for getting</p> <p>8 software for network communications.</p> <p>9 Q. And are there common graphic</p> <p>10 libraries with corresponding APIs that a</p> <p>11 person with skill in the art can use to</p> <p>12 generate images on display?</p> <p>13 MR. TYSON: I object to the</p> <p>14 form.</p> <p>15 A. If a developer knew what they</p> <p>16 wanted -- what images they wanted to</p> <p>17 generate on the screen, then there are</p> <p>18 common libraries that can be used to do</p> <p>19 that.</p> <p>20 Q. And they would have a</p> <p>21 corresponding application program</p> <p>22 interface that could be used in connection</p> <p>23 with that?</p> <p>24 A. Yes, most graphics libraries or</p> <p>25 user interface libraries provide APIs that</p>	<p style="text-align: right;">Page 213</p> <p>1 computational apparatus?</p> <p>2 A. I don't have any specific</p> <p>3 recollection.</p> <p>4 Q. And would you agree that there's</p> <p>5 standard modules of software that a person</p> <p>6 that's skilled in the art would know to</p> <p>7 use to generate a display?</p> <p>8 MR. TYSON: I object to the</p> <p>9 form.</p> <p>10 A. Yes. Again, if the developer</p> <p>11 knows what he wants to display, then there</p> <p>12 are software modules he can use to</p> <p>13 generate the display of the content that</p> <p>14 he wants to display.</p> <p>15 Q. And would you agree that also</p> <p>16 applies to outputting a message that's</p> <p>17 based on information that's received?</p> <p>18 MR. TYSON: I object to the</p> <p>19 form.</p> <p>20 A. Well, if the developer knows</p> <p>21 exactly how they want to take information</p> <p>22 that's been received and generate a</p> <p>23 message from that, then the developer</p> <p>24 would know how to do that using a software</p> <p>25 library.</p>

<p style="text-align: right;">Page 214</p> <p>1 Q. Do you recall opining that a 2 symbol generator is a standard module 3 software code that was well known in the 4 art, and that the term symbol generator 5 would have been sufficient to identify 6 these modules of software code to one with 7 skill? 8 A. So I recall opining that a user 9 -- one of skill using the term single 10 generator, we're talking about displaying 11 symbols on the screen, that the user could 12 figure out how to generate symbols, a 13 symbol generator, but using a software 14 library. 15 Q. What it says, and probably I 16 didn't get copies of this, furthermore, 17 one of ordinary skill in the art would 18 have understood that a symbol generator as 19 a standard module software code that was 20 well known in the art and that the term 21 symbol generator would have been 22 sufficient to identify these modules of 23 program code to one of ordinary skill in 24 the art, so I don't think that you were 25 saying that one would then have been able</p>	<p style="text-align: right;">Page 216</p> <p>1 listed in the claim, and that was from 2 Counsel in the Agis case. 3 Q. Okay. 4 A. In this matter, as I set forth 5 in my declaration, I was asked to 6 determine if the patent specification of 7 the claims themselves disclosed the 8 structure for performing the functions in 9 the claims, and so it was a different 10 exercise, but certainly for some of the 11 claim terms that we've discussed, 12 including internet protocol, Bluetooth 13 protocol, you know, I knew immediately 14 that that corresponded to certain 15 libraries of software that one could have, 16 that one could get. 17 Q. You can't include that 18 information in your declaration, however, 19 correct? 20 A. Well, I was not asked to opine 21 on the limitations regarding Bluetooth or 22 internet protocol. 23 Q. Even as they were contained in 24 some of the disputed claim terms? 25 A. Well, my declaration speaks for</p>
<p style="text-align: right;">Page 215</p> <p>1 to create the program code, I think you 2 said it was already available? 3 MR. TYSON: Objection. 4 Foundation. 5 A. Right, what I said was that -- 6 well, you read it, but upon reading the 7 term symbol generator, the user would then 8 know, oh, I can go get this piece of 9 software that displays symbols on the 10 screen, which is what the claim symbol 11 generator does. 12 Q. Did you consider whether any of 13 the claim terms that are recited on your 14 declaration, whether any of those were 15 well known to art and refer to standard 16 modules of software code? 17 A. Well, I did for some of the 18 terms that we talked about, such -- 19 related to the various communications 20 protocols. In the Agis case which you're 21 reading from, I was asked by Counsel to 22 opine on whether a person upon -- a person 23 of skill upon reading the various claim 24 elements would be able to identify 25 software that accomplished the functions</p>	<p style="text-align: right;">Page 217</p> <p>1 itself, and that is I was asked to 2 determine whether there was structure in 3 the claims or in the specifications for 4 the claim terms as a whole that I listed 5 in my declaration. 6 Q. Do you think that it was a 7 mistake not to examine some of the 8 communication protocols and how messages 9 were transmitted to see if it provided 10 support for the functionality recited in 11 the claims, and to the extent that 12 specification was recited in the 13 provisional or in the 197 application? 14 MR. TYSON: I object to the 15 form. Mischaracterizing testimony. 16 A. I was asked to review the claims 17 and the specification for certain 18 limitations, and asked to opine on whether 19 there was sufficient structure disclosed 20 in the claims and the specification to 21 support the claim functionality that I was 22 asked to opine about. 23 Certainly I would have 24 considered citations within the 25 specifications of the claims to specific</p>

<p style="text-align: right;">Page 218</p> <p>1 protocols, for example, I would have 2 considered those in forming my opinions. 3 As you'll read in my 4 declaration, the bases for my opinions was 5 not due to ignoring any communications 6 protocols. 7 Q. I'm just curious, you know, for 8 example, when the Bluetooth communication 9 protocol was explicitly spelled out in the 10 claim that you didn't, I guess, review 11 parts of that in the process of forming 12 your opinion regarding whether there was 13 sufficient structure in the claim for 14 performing the function. 15 A. I think you'll see in my 16 declaration that my opinions were not 17 based on what the Bluetooth protocol did 18 or did not provide, but rather what was 19 disclosed in the patent. 20 Q. Okay. And which also -- I mean, 21 the patent did disclose Bluetooth 22 communication protocol, right? 23 A. Right, you see that my opinions 24 are not related to that aspect. 25 Q. Okay. And at this time, since</p>	<p style="text-align: right;">Page 220</p> <p>1 fields and at least one value. 2 And if I recall, you took issue 3 with the receiving and indication of 4 receipt as not being supported, and based 5 on our discussion of today, it seems that 6 the Bluetooth wireless communications 7 protocol could potentially have that be 8 part of the way messages are handled in a 9 network? 10 MR. TYSON: Objection to the 11 form. 12 A. So my understanding is that 13 there's not sufficient structure to simply 14 refer to the Bluetooth wireless 15 communications protocol and assume that 16 the one of skill reading the claim would 17 need to dig through every aspect of the 18 Bluetooth wireless communications protocol 19 to figure out if there's any way to 20 receive an indication of a receipt, even 21 though it's not disclosed in the patent 22 specification, and so I did not dig into 23 the Bluetooth wireless communications 24 protocol trying to search for every 25 possible way that an indication of a</p>
<p style="text-align: right;">Page 219</p> <p>1 you haven't recently reviewed the 2 Bluetooth communication protocol, you 3 can't opine on whether or not it actually 4 would provide any support for the claims 5 having sufficient structure, is that fair? 6 A. No, I don't think that's fair. 7 Q. So without knowing the Bluetooth 8 communication protocol and, for example, 9 the procedures and rules and details for 10 exchanging messages, you can still -- 11 maybe it's best if I give an example. 12 So for example, it was disputed 13 claim term eight, I'm looking at the 899 14 patent, claim one, it's lines 58 through 15 64, and it was an application configured 16 for execution by a plurality of mobile 17 devices. The application when executed 18 configured to and then for disputed claims 19 were made received indication of a receipt 20 without solicitation from the at least one 21 broadcast short-range communications unit 22 and via the Bluetooth wireless 23 communications protocol of one or more 24 messages including the address portion and 25 the identifier including at least three</p>	<p style="text-align: right;">Page 221</p> <p>1 receipt could be received, but rather 2 understood that that should be disclosed 3 in the patent specification. 4 Q. And so it's not your opinion 5 that the hypothetical person of ordinary 6 skill in the art would have known the 7 Bluetooth standard, it's your opinion that 8 they would not have dived through it to 9 see if the particular functionality 10 recited in the disputed claim made was 11 part of the Bluetooth wireless 12 communications protocol, which we, I 13 think, agreed required that both the 14 sending node and receiving node have some 15 type of software so that they can abide by 16 that protocol? 17 MR. TYSON: I object to the 18 form. 19 A. My understanding is that the 20 patentee is required to disclose such -- a 21 claimed element like this without 22 requiring one of skill to be able to 23 construct the structure for this element 24 based on one of skill's knowledge, in this 25 case, one of skill's knowledge of the</p>

<p style="text-align: right;">Page 222</p> <p>1 wireless communications protocol.  2 Q. You agreed earlier that  3 Bluetooth wireless communication protocol  4 is a term of art, correct?  5 A. Yes.  6 Q. Okay. Okay. I understand your  7 position, I don't necessarily agree, but I  8 don't know if there's value in belaboring  9 the point.  10 A. Right.  11 Q. But it did occur to me that  12 there were certain disclosures in terms of  13 standards and communication protocols and  14 the like in the provisional that you did  15 not discuss any detail to see if they may  16 provide support for the claim limitations,  17 is that fair that you did not go through  18 that exercise?  19 A. You know what? I certainly did  20 for the provisional, and for the  21 specification of the 197, I went through  22 the exercise of determining what exactly  23 was identified as structure and how it  24 correlated to the claims.  25 Q. But I guess my point is that you</p>	<p style="text-align: right;">Page 224</p> <p>1 A. And I'll note the provisional  2 only mentions Bluetooth in passing.  3 Q. I guess that begs the question,  4 it's still mentioned, though, right?  5 A. It does appear once.  6 Q. And it does appear in some of  7 the -- certain claims as well, correct?  8 A. Of these later patents?  9 Q. Yes.  10 A. Certainly.  11 MR. DAHLGREN: Yes. I think I  12 just need a minute or two to see if I  13 have anything left, I think I may have  14 covered it all.  15 [A recess was taken.]  16 MR. DAHLGREN: Unless your  17 Counsel has any questions for you, I  18 don't have any further questions at  19 this time, and thank you very much,  20 Dr. Goldberg, I appreciate your  21 participation today.  22 THE WITNESS: Thank you.  23 MR. TYSON: I've just got a  24 couple, couple of questions.  25 MR. DAHLGREN: Then I may</p>
<p style="text-align: right;">Page 223</p> <p>1 did not go further when it talks about,  2 for example, modifying IEEE 802-11 to  3 be -- to allow what is known as a  4 association-less protocol --  5 A. Association-less?  6 Q. I keep saying that, association-  7 less protocol, correct. There was also  8 the IEEE 1609 wireless access in vehicular  9 environments wave, and I didn't see much  10 of -- any discussion of that.  11 A. Correct.  12 Q. You know, with some of the  13 claims reciting very specific  14 communication protocols, you know, such as  15 Bluetooth. You did not go through the  16 exercise of diving into those various  17 standards or protocols to see if reference  18 to them was enough to provide support for  19 the claim limitations, is that correct?  20 A. I -- I think the way to say it  21 is I did not dive into those protocols  22 searching for support for a particular  23 function claimed in the 899 or the 292  24 patent.  25 Q. Okay.</p>	<p style="text-align: right;">Page 225</p> <p>1 have --  2 MR. TYSON: You might have some  3 after.  4 EXAMINATION BY  5 MR. TYSON:  6 Q. Dr. Goldberg, we're talking  7 about the 292 patent, could you open that  8 up? I think that's deposition Exhibit 2.  9 Just look at claim one, for example.  10 A. Okay.  11 Q. Claim one, as part of the claim,  12 Counsel had asked you a number of  13 questions related to code, and column 31,  14 we see there at about line seven, code  15 configured to be executed by at least one  16 of the plurality of mobile devices, do you  17 see that?  18 A. I do.  19 Q. And I've tried to write this  20 down, but I may have gotten it wrong, but  21 I believe that earlier you testified that  22 code in a general sense is a term that  23 might mean a set of software instructions,  24 is that consistent with your testimony?  25 A. Yes.</p>


<p style="text-align: right;">Page 226</p> <p>1 Q. And so the code could be a set 2 of many different software instructions, 3 is that fair? 4 MR. DAHLGREN: Objection. 5 Leading. 6 A. It could be any collection of 7 software instructions in any sequence. 8 Q. And just looking at 292 patent 9 claim one, and I think you've given 10 testimony in your declaration, there's a 11 number of functions that this recited code 12 is performing. For example, there's at 13 column 31, line about 11 to 14, there's 14 this cause display of an option function 15 at the next -- let's say at column 31, 16 line 18 to 22, there's a receive and 17 indication of a receipt of the one or more 18 first broadcast messages function. 19 Then for example at column 32, 20 line four, let's say line four to 11, and 21 really specifically where it says caused 22 to be outputted around line eight, there's 23 a another function of code, cause to be 24 output, the first visual information based 25 on the first location relevant</p>	<p style="text-align: right;">Page 228</p> <p>1 recitation of an application, do you see 2 that? 3 A. Yes. 4 Q. Are you familiar with whether an 5 application could mean -- really would 6 generally mean one or more applications? 7 MR. DAHLGREN: Objection to 8 form. Foundation. 9 A. As claimed -- 10 Q. As claimed here. 11 A. In patent -- in patent law? My 12 understanding is that an application could 13 refer to one or more. 14 Q. One or more applications? 15 A. Yes. 16 Q. So again, looking at here, there 17 are some of these recited functions that 18 you provided testimony on, others that you 19 did not, but here again at column 29, line 20 53 to 54, we have a display of an option 21 via the display of at least one mobile 22 device, then again at column 29, about 23 line 50, let's go down to about 58 to 64, 24 you've got this receive and indication of 25 a receipt of the one or more messages.</p>
<p style="text-align: right;">Page 227</p> <p>1 information, so these are just three 2 examples, there's other functions that are 3 recited in this code, would you agree with 4 that? 5 A. Yes. 6 MR. DAHLGREN: Objection to 7 form. Leading. 8 Q. Is it your belief that literally 9 the identical software instruction in this 10 set of code would have to be what's 11 performing each of the recited functions, 12 is that your testimony? 13 MR. DAHLGREN: Objection. Form. 14 Q. Let me ask it a different way. 15 Could a different software 16 instruction in this code set perform each 17 of those functions? 18 A. Each of these functions could be 19 performed by a different set of 20 instructions within the same code. 21 Q. Okay. Again, so looking now at 22 the 899 patent in claim one, and this is 23 at column 29, 899 is Exhibit 1 of your 24 deposition, so we have the 899 patent. At 25 column 29 at about line 48, there's the</p>	<p style="text-align: right;">Page 229</p> <p>1 Then just going across again, 2 you have application in saying said 3 application, but it's referring again to, 4 let's say at column 30, line 37 to 40, 5 there's receive the response message, and 6 then even after that, we have a limitation 7 that you talked about column, 30 -- 8 starting at about line 41 and then going 9 down to line 49, there there is this in 10 response to the receipt, you have control 11 including causing to be output the mobile 12 device application visual information. 13 So I'm paraphrasing some of 14 these, but I'm generally referring to 15 different functions that are recited for 16 the application here, and is it your 17 testimony that literally the same 18 application would have to perform every 19 single one of the functions claims? 20 MR. DAHLGREN: Objection. Form. 21 Leading. 22 A. Well, my understanding is that 23 when a claim recites a or an something, it 24 means one or more, and so looking at an 25 application, if that means one or more</p>

<p style="text-align: right;">Page 230</p> <p>1 applications, then it would seem to me as</p> <p>2 a layperson that the one or more</p> <p>3 applications would need to support the</p> <p>4 functions that you mentioned. So it</p> <p>5 wouldn't necessarily have to be exactly</p> <p>6 the same program, but rather it could be</p> <p>7 one of the applications of the an</p> <p>8 application claimed.</p> <p>9 Q. I actually want to go to your</p> <p>10 declaration. Counsel had asked you a</p> <p>11 number of questions about the provisional</p> <p>12 application and about a lot of discussion</p> <p>13 in background which is the provisional</p> <p>14 application, so your declaration is</p> <p>15 Exhibit 3 of the deposition, and then I</p> <p>16 think the provisional itself is Exhibit 4.</p> <p>17 A. Yes.</p> <p>18 Q. So just turning to page nine of</p> <p>19 your declaration.</p> <p>20 A. Okay.</p> <p>21 Q. So just looking at paragraph 31,</p> <p>22 and I'm just going to read it, you say at</p> <p>23 Dyfan's contended time of the invention,</p> <p>24 parenthesis, March 2011, the 584</p> <p>25 provisional identified various problems</p>	<p style="text-align: right;">Page 232</p> <p>1 provisional is identifying problems with,</p> <p>2 is that consistent with your testimony?</p> <p>3 A. Yes.</p> <p>4 Q. And then the third paragraph, I</p> <p>5 think this is referring again to page 16,</p> <p>6 and why don't we turn to page 16 of the</p> <p>7 provisional itself. And I think actually,</p> <p>8 let's turn to page 14, so 14 and 15,</p> <p>9 Counsel asked you a number of questions</p> <p>10 about this dedicated short-range</p> <p>11 communications, DSRC, and then a number of</p> <p>12 these protocols, the 16 -- the different</p> <p>13 IEEE 1609 protocols on page 15, this</p> <p>14 vehicle infrastructure integration on page</p> <p>15 seven and then the paragraph below that</p> <p>16 page 15 refers to -- it's the second</p> <p>17 paragraph on page 15 of the provisional</p> <p>18 application refers to a roadside unit --</p> <p>19 A. Yes.</p> <p>20 Q. -- do you see that? And that</p> <p>21 has a parenthesis of RSU?</p> <p>22 A. Yes.</p> <p>23 Q. And then on page 16, there's a</p> <p>24 number of other prior protocols that are</p> <p>25 listed here, including those IEEE 1609.2,</p>
<p style="text-align: right;">Page 231</p> <p>1 with acknowledged prior art systems, and</p> <p>2 then I see it looks like these are</p> <p>3 indented paragraphs, are these excerpts</p> <p>4 from the 584 provisional that you provided</p> <p>5 here?</p> <p>6 A. Yes.</p> <p>7 Q. And some of those acknowledged</p> <p>8 prior art systems that you did say</p> <p>9 identified various problems, I'm looking</p> <p>10 at the first excerpt 584 provisional at</p> <p>11 page 18 is the internet protocol which is</p> <p>12 identified there?</p> <p>13 A. Correct.</p> <p>14 Q. And then in the second</p> <p>15 paragraph, you talk about -- the excerpt</p> <p>16 from the provisional at page 16 is in the</p> <p>17 various addressed network systems</p> <p>18 described above, and it has parenthesis</p> <p>19 cellular, WiMAX, et cetera, do you see</p> <p>20 them?</p> <p>21 A. Yes.</p> <p>22 Q. So internet protocol, cellular</p> <p>23 protocols, WiMAX protocols, those were all</p> <p>24 acknowledged prior art systems that it's</p> <p>25 your testimony here that the 584</p>	<p style="text-align: right;">Page 233</p> <p>1 then there's a number of transfer</p> <p>2 protocols listed in the second paragraph</p> <p>3 on page 16, and your quote here from page</p> <p>4 16 is -- it looks like that's the last</p> <p>5 paragraph on page 16.</p> <p>6 A. That's correct.</p> <p>7 Q. And it's referring to a number</p> <p>8 of problems with -- it looks like -- the</p> <p>9 last sentence is referring to broadcasting</p> <p>10 to all terminals in the vicinity of an RSU</p> <p>11 requesting that they send data about that</p> <p>12 location, so there's some testimony that</p> <p>13 you're excerpting here that that DSRC</p> <p>14 system that had these radio -- what do</p> <p>15 they call it, roadside units, RSCs (sic),</p> <p>16 that were -- identified problems with</p> <p>17 those acknowledged prior art systems,</p> <p>18 correct?</p> <p>19 A. Correct.</p> <p>20 Q. And then I think you cite to a</p> <p>21 paragraph at page 18 of the provisional,</p> <p>22 this is again still on page nine of your</p> <p>23 declaration, it looks like this is the</p> <p>24 last paragraph of what is called the</p> <p>25 background of the invention, do you see</p>

<p style="text-align: right;">Page 234</p> <p>1 that?</p> <p>2 A. I do.</p> <p>3 Q. And I'm just going to read it,</p> <p>4 it says it is obvious that today's systems</p> <p>5 do not provide a convenient method of</p> <p>6 directly sending data messages to a</p> <p>7 certain physical location, and do not</p> <p>8 support the efficient collection of</p> <p>9 certain data messages from specified</p> <p>10 physical locations, do you see that?</p> <p>11 A. I do.</p> <p>12 Q. So these paragraphs and other</p> <p>13 paragraphs that I've identified in here,</p> <p>14 you're referring to those, and you put</p> <p>15 them under the caveat, the 584 provisional</p> <p>16 identified various problems with</p> <p>17 acknowledged prior art systems, is that</p> <p>18 correct?</p> <p>19 A. Yes.</p> <p>20 Q. Just looking at the next two</p> <p>21 paragraphs in your declaration, so</p> <p>22 paragraphs 32 and 33 of your declaration,</p> <p>23 you now get into what's called the summary</p> <p>24 of the invention section, and you say the</p> <p>25 summary of the invention section of the</p>	<p style="text-align: right;">Page 236</p> <p>1 the invention solution, and it looks like</p> <p>2 you have a quote there, can you just read</p> <p>3 that quote on page ten of your declaration</p> <p>4 from the 584 provisional at page 21</p> <p>5 starting with the invention? Can you read</p> <p>6 it out loud?</p> <p>7 A. In fact, I will read it right</p> <p>8 from the -- from the provisional on page</p> <p>9 21. The invention described herein</p> <p>10 provides a means and function for</p> <p>11 delivering messages to certain physical</p> <p>12 locations and for collecting data from</p> <p>13 certain locations, period.</p> <p>14 The approach uses a location</p> <p>15 header in the communication process that a</p> <p>16 location-aware proxy server can understand</p> <p>17 to route messages to and from mobile</p> <p>18 terminals via a variety of wireless and</p> <p>19 wireline communication networks, period.</p> <p>20 Q. And -- I mean, you as</p> <p>21 interpreting this as a person with</p> <p>22 ordinary skill in the art, you</p> <p>23 characterize this as a paragraph, I mean,</p> <p>24 it uses the word invention as summarizing</p> <p>25 the invention solution as disclosed in the</p>
<p style="text-align: right;">Page 235</p> <p>1 584 provisional identifies the solution to</p> <p>2 set the invention apart from these prior</p> <p>3 art systems and solve these problems, do</p> <p>4 you see that?</p> <p>5 A. I do.</p> <p>6 Q. And it looks like you cite to a</p> <p>7 number of different paragraphs and you're</p> <p>8 just quoting those paragraphs at page 18,</p> <p>9 is that correct?</p> <p>10 A. Yes.</p> <p>11 Q. Like the first quote, it says</p> <p>12 the present invention addresses the</p> <p>13 challenges mentioned above, do you see</p> <p>14 that?</p> <p>15 A. I do.</p> <p>16 Q. And then you -- I think you</p> <p>17 really actually are just quoting a number</p> <p>18 of these paragraphs on page 18.</p> <p>19 A. Correct, in fact it's just one,</p> <p>20 consecutive paragraph, one big block.</p> <p>21 Q. Let's go to paragraph 33,</p> <p>22 actually, of your declaration. And you</p> <p>23 say the detailed description of presently</p> <p>24 preferred embodiments of the invention</p> <p>25 section of the 584 provisional summarizes</p>	<p style="text-align: right;">Page 237</p> <p>1 provisional, is that fair?</p> <p>2 MR. DAHLGREN: Objection to</p> <p>3 form. Leading.</p> <p>4 A. Yes, I say it right there that</p> <p>5 this is how the provisional summarizes the</p> <p>6 invention disclosed in the provisional,</p> <p>7 which is using a location header in the</p> <p>8 communication process, so a very specific</p> <p>9 way of performing location-aware routing.</p> <p>10 Q. And -- would you -- is it fair</p> <p>11 to say that the invention was purporting</p> <p>12 to modify the format of messages that were</p> <p>13 exchanged via existing wireless</p> <p>14 communication protocols?</p> <p>15 MR. DAHLGREN: Objection to</p> <p>16 form. Leading.</p> <p>17 A. Yes, as disclosed in the prior</p> <p>18 art section of the provisional, of the</p> <p>19 existing protocols had drawbacks that</p> <p>20 prevented them from performing this</p> <p>21 location-aware communications, and the</p> <p>22 provisional, the invention of the</p> <p>23 provisional sought to solve those problems</p> <p>24 through the use of a location header.</p> <p>25 Q. And the location header, that</p>

<p style="text-align: right;">Page 238</p> <p>1 would be something that would be inserted  2 as a header that would be modifying the  3 format of these messages, is that correct?  4 MR. DAHLGREN: Objection to the  5 form. Leading.  6 A. That is what was disclosed in  7 the provisional, yes.  8 Q. Is it fair to say that the  9 invention was also modifying these  10 protocols, so not only using this location  11 header, but also routing messages based on  12 the location header, is that fair that it  13 was modifying these existing protocols  14 using this location header and routing  15 that location header?  16 MR. DAHLGREN: Objection to the  17 form. Leading.  18 A. So it was modifying the protocol  19 to insert a location header into the  20 message and then modifying the routing of  21 messages based on the location header.  22 Q. And that was the invention that  23 is specifically called out by 584  24 provision?  25 A. Yes, one of skill reading the</p>	<p style="text-align: right;">Page 240</p> <p>1 You refer to your definition of  2 a person of ordinary skill in the art, and  3 I think Counsel actually pointed you to  4 this earlier, looking at, I think -- you  5 have a section on page four of your  6 declaration starting with paragraph 14, it  7 says person of ordinary skill in the art,  8 and that's section 6B, I believe?  9 A. Yes.  10 Q. And you have -- the paragraph 14  11 includes your understanding from  12 Defendant's Counsel, paragraph 15 says  13 something, I've been advised that a person  14 of ordinary skill is a hypothetical  15 person, and then in paragraph 16, you  16 render your opinion with respect to a  17 person of ordinary skill in the art, is  18 that a fair summary of this --  19 A. Yes.  20 Q. -- these paragraphs?  21 A. Yes.  22 Q. And so you first say that a  23 person with ordinary skill in the art  24 would have had a bachelor of science  25 degree in computer science or similar</p>
<p style="text-align: right;">Page 239</p> <p>1 provision would understand that was the  2 invention.  3 Q. And I think Counsel had asked  4 you a number of questions on these, but  5 just to confirm, the provisional is  6 referring to cellular standards like 3G,  7 so 3G would be an example of an existing  8 wireless communication protocol?  9 A. Certainly.  10 Q. And WiMAX would be an example of  11 an existing wireless communication  12 protocol?  13 A. Yes.  14 Q. And Wi-Fi would be an example of  15 an existing wireless communication  16 protocol?  17 A. Correct.  18 Q. And Bluetooth would be an  19 example of an existing wireless  20 communication protocol?  21 A. That's correct.  22 Q. Do you believe that you have  23 specialized skill and training in software  24 development -- actually, let's go to your  25 declaration.</p>	<p style="text-align: right;">Page 241</p> <p>1 technical field together with two years of  2 educational practicum or work experience  3 in the field of software development,  4 parenthesis, including programming for  5 client server systems, databases and  6 networks or related areas, do you see  7 that?  8 A. I do.  9 Q. And would you say sitting here  10 today, you have specialized skill and  11 training in software development that  12 would assist the court, in this case the  13 judge in the Western District of Texas,  14 that would assist the court in resolving  15 the issues to which you've provided  16 testimony in your declaration?  17 A. I do.  18 MR. DAHLGREN: Objection to the  19 form. Leading.  20 Q. And also based on your  21 definition, would you -- sitting here  22 today, do you believe you have specialized  23 skill and training in data communication  24 networks including those involving mobile  25 devices that would assist the court in</p>

<p style="text-align: right;">Page 242</p> <p>1 resolving the issues for which you've 2 provided testimony in your declaration on 3 in this case? 4 MR. DAHLGREN: Objection to the 5 form. Leading. 6 A. Yes. 7 Q. And you would have had that 8 specialized skill and training prior to 9 the priority date of these patents which 10 is March 2011? 11 MR. DAHLGREN: Objection. 12 A. Yes. 13 MR. TYSON: Okay, I have no 14 further questions. 15 MR. DAHLGREN: I think I might 16 just have a few. 17 CONTINUED EXAMINATION BY 18 MR. DAHLGREN: 19 Q. So your Counsel asked you a 20 variety of questions about some of the 21 drawbacks in the existing systems at the 22 time that the provisional was filed, 23 correct? 24 A. Yes. 25 Q. And it's your opinion or you</p>	<p style="text-align: right;">Page 244</p> <p>1 record was read.] 2 A. I would characterize it as the 3 invention of the provisional application 4 built upon or adapted conventional network 5 protocols in order to perform location- 6 aware routing. It actually modified what 7 was -- what is already there, to perform 8 location-aware routing. 9 Q. So if you look at the 10 provisional application, it's page 20 of 11 35, looking at the court header, the last 12 full paragraph says the current invention 13 may support a wide variety of mobile 14 communication networks including Wi-Fi 15 hotspots, there's a IEEE standard in 16 parenthesis there, WiMAX, another 17 standard, ad hoc networks and based on 18 what appears to be other standards, 19 derivatives such as DSRC cellular 20 networks, 2G, CMA, GSM, 2.5G, et cetera, 21 do you see that? 22 A. I do. 23 Q. Okay. And are those the type of 24 communication networks that we were 25 talking about that have protocols?</p>
<p style="text-align: right;">Page 243</p> <p>1 cite a statement where they say that they 2 have found a way to overcome those 3 challenges, correct? 4 A. Which one are you referring to? 5 Where -- I assume you're referring to page 6 ten of my declaration where the 7 provisional sets forth a summary of the 8 invention and detailed description? 9 Q. I was looking at the provisional 10 application, Exhibit 4, the page ten of 11 35, it's under summary invention, the 12 present invention addresses the challenges 13 mentioned above. 14 A. I see that. 15 Q. Now, you would agree that the 16 invention did not -- or provisional did 17 not purport to create a new type of 18 network that did not use any existing or 19 conventional technology whatsoever, 20 correct? 21 A. Could you read back the 22 question? 23 MR. DAHLGREN: Do you mind 24 reading it back, please. 25 [The requested portion of the</p>	<p style="text-align: right;">Page 245</p> <p>1 A. These have protocols, yes. 2 Q. Did you review any of these 3 protocols when you were evaluating the 4 disputed claim terms in your declaration? 5 A. I've -- not as part of the 6 preparation of my declaration, I reviewed 7 a number of these protocols already. I 8 also note that it says the current 9 invention may support them, it doesn't say 10 the other way around, that these 11 technologies may support the invention. 12 Right? 13 What they're saying, you can 14 build -- you can still build these network 15 protocols on top of the invention, so that 16 even though the invention requires a 17 location header, you can still implement 18 these -- these protocols on top of the 19 invention. 20 Q. And implementing those protocols 21 on top of the invention would entail 22 utilizing the various rules, things you 23 mentioned in terms of how messages are 24 transmitted, for example? 25 A. Sure, in addition to, of course,</p>

<p style="text-align: right;">Page 246</p> <p>1 the location header disclosed in the 2 provisional. 3 Q. Going to the 899 patent, there 4 was some question about an application in 5 claim one, it's referred to in, it looks 6 like it's line 48 of column 29 of 899 7 patent, it says an application, and 8 Counsel asked you if that could refer to 9 one or more? 10 A. Yes. 11 Q. Does the fact that at line 35 in 12 column 30 it then refers to said 13 application when executed, does that 14 inform you as to whether the an 15 application was singular or allowed for 16 more than one? 17 A. I mean, you're asking a question 18 about drafting of patent claims, and as a 19 layperson, as I testified, my 20 understanding of the claim says an 21 application, it can be understood to mean 22 one or more, so I would assume that the 23 said application would refer to said one 24 or more applications, but that's my 25 understanding as a layperson of patent</p>	<p style="text-align: right;">Page 248</p> <p>1 application and said second application 2 anywhere in claim one of the 899 patent, 3 does it? 4 A. No. 5 MR. DAHLGREN: Okay. That's 6 everything, I thank you again, I 7 appreciate it. 8 9 [TIME NOTED: 5:36 p.m.] 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>
<p style="text-align: right;">Page 247</p> <p>1 drafting. 2 Q. And if you look at column 30, 3 lines 25 through 34, it says after 4 particular location-relevant information 5 is located based on the at least one value 6 cause to be sent from the at least one 7 server to the at least one mobile device 8 and via the internet protocol, response 9 message including the particular 10 location-relevant information for use in 11 controlling the one or more mobile device 12 application actions of the application 13 including causing to be output via the at 14 least one mobile device, the mobile device 15 application visual information, does 16 that -- is your understanding of the 17 reference to mobile device application 18 there, is that a singular or plural? 19 A. No, I think the one or more 20 application -- if an application means one 21 or more applications, then where you see 22 the application refers to the one or more. 23 Again, you're asking me as a layperson 24 about patent drafting language. 25 Q. It doesn't say said first</p>	<p style="text-align: right;">Page 249</p> <p>1 C E R T I F I C A T I O N 2 3 I, ARTHUR HECHT, a Notary Public for 4 and within the State of New York, do 5 hereby certify that the foregoing witness, 6 BENJAMIN GOLDBERG, was duly sworn on the 7 date indicated, and that the foregoing is 8 a true and accurate transcription of my 9 stenographic notes. 10 I further certify that I am not 11 employed by nor related to any party to 12 this action. 13 14 15 16 17 18 19 20 21 22 23 24 25</p> <p style="text-align: center;"> ARTHUR HECHT</p>

<p style="text-align: right;">Page 250</p> <p>1 Christopher Tyson, Esq. - Duane Morris LLP  2 cjtysen@duanemorris.com  3 November 15, 2019  4 RE: Dyfan LLC v. Target Corpoproration  5 11/12/2019, Dr. Benjamin Goldberg (#3665610)  6 The above-referenced transcript is available for  7 review.  8 Within the applicable timeframe, the witness should  9 read the testimony to verify its accuracy. If there are  10 any changes, the witness should note those with the  11 reason, on the attached Errata Sheet.  12 The witness should sign the Acknowledgment of  13 Deponent and Errata and return to the deposing attorney.  14 Copies should be sent to all counsel, and to Veritext at  15 &lt;Email address for Errata Return&gt;  16  17 Return completed errata within 30 days from  18 receipt of testimony.  19 If the witness fails to do so within the time  20 allotted, the transcript may be used as if signed.  21  22 Yours,  23 Veritext Legal Solutions  24  25</p>	<p style="text-align: right;">Page 252</p> <p>1 Dyfan LLC v. Target Corpoproration  2 Dr. Benjamin Goldberg (#3665610)  3 ACKNOWLEDGEMENT OF DEPONENT  4 I, Dr. Benjamin Goldberg, do hereby declare that I  5 have read the foregoing transcript, I have made any  6 corrections, additions, or changes I deemed necessary as  7 noted above to be appended hereto, and that the same is  8 a true, correct and complete transcript of the testimony  9 given by me.  10  11 _____  12 Dr. Benjamin Goldberg Date  13 *If notary is required  14 SUBSCRIBED AND SWORN TO BEFORE ME THIS  15 _____ DAY OF _____, 20____.  16  17  18 _____  19 NOTARY PUBLIC  20  21  22  23  24  25</p>
<p style="text-align: right;">Page 251</p> <p>1 Dyfan LLC v. Target Corpoproration  2 Dr. Benjamin Goldberg (#3665610)  3 E R R A T A S H E E T  4 PAGE____ LINE____ CHANGE_____  5 _____  6 REASON_____  7 PAGE____ LINE____ CHANGE_____  8 _____  9 REASON_____  10 PAGE____ LINE____ CHANGE_____  11 _____  12 REASON_____  13 PAGE____ LINE____ CHANGE_____  14 _____  15 REASON_____  16 PAGE____ LINE____ CHANGE_____  17 _____  18 REASON_____  19 PAGE____ LINE____ CHANGE_____  20 _____  21 REASON_____  22 _____  23 _____  24 Dr. Benjamin Goldberg Date  25</p>	

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Texas Rules of Civil Procedure  
Part II, Section 9, Evidence and Discovery  
Rule 203

203.1 Signature and Changes.

(a) Deposition transcript to be provided to witness. The deposition officer must provide the original deposition transcript to the witness for examination and signature. If the witness is represented by an attorney at the deposition, the deposition officer must provide the transcript to the attorney instead of the witness.

(b) Changes by witness; signature. The witness may change responses as reflected in the deposition transcript by indicating the desired changes, in writing, on a separate sheet of paper, together with a statement of the reasons for making the changes. No erasures or obliterations of any kind may be made to the original deposition transcript. The witness must then sign the transcript under oath and return it to the deposition officer. If the witness does not return the transcript to the deposition officer within 20 days of the date the transcript was provided to the witness or the

witness's attorney, the witness may be deemed to have waived the right to make the changes.

(c) Exceptions. The requirements of presentation and signature under this subdivision do not apply:

(1) if the witness and all parties waive the signature requirement;

(2) to depositions on written questions; or

(3) to non-stenographic recordings of oral depositions.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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